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DIVISION OF REVIEW

STATISTICAL BACKGROUND OF THE NRA

By

Victor S. von Szeliski

WORK MATERIALS NO. SEVEN

STATISTICS STUDIES SECTION
MARCH, 1936

OFFICE OF NATIONAL RECOVERY ADMINISTRATION

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9820

SUMMARY DATA RELATING TO OPERATION OF THE NRA

The statistical exhibits are arranged according to the following classification of objectives and problems.

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In general, recovery in consumers' goods industries is said to be keyed to the amount of money consumer's have available to satisfy their accumulated wants. "It is hereby declared to be the policy of Congress . . to increase the consumption of industrial and agricultural products by increasing purchasing power." Demand for goods - desire plus purchasing power.

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I. THE OBJECTIVE OF INCREASED PRODUCTION, AND REEMPLOYMENT THROUGH INCREASED PRODUCTION

A. PRODUCTION AND USE OF CAPACITY

"It is hereby declared to be the policy of Congress.....to promote the fullest possible utilization of the present productive capacities of industries. . . ."

Table 1 and Chart 1 show the general course of depression and recovery for the United States, and other important countries, by years through 1932 and by months for 1933-35. The depth of depression varied from country to country. Some adjusted themselves to the shocks of deflation and succeeded in maintaining a relatively high rate of activity, while others did not. The problem of recovery presented itself to each with different intensity.

Economic activity in the United States in 1932 and early 1933 had sunk farther relative to pre-depression levels than that of any of these countries, and unemployment was more acute. The recovery problem presented itself with greater insistence here than in most, if not all, other countries.

The drop in the world position of the United States in sixteen commodities is shown in table 2. This compares the ratio of U.S. output to world output in 1929 and 1934. The comparison would have been still more unfavorable in 1933. In two cases the position of the United States showed an increase, but, for most, and the most important, commodities the loss of the United States was severe. The extreme drop was in copper, in which the United States fell from 52% of the world's output in 1929 to 19% in 1934.

Use of Physical Resources. The physical plant of the United States was partly idle even during the '20's. The obvious fact of idle machinery standing ready to produce goods of which millions were in need has caused a number of studies to be made of the producing capacity of the country. The most conservative of these is "America's Capacity to Produce." published by the Brookings Institution. The amount of this unutilized capacity is indicated in Chart 3.

Amount of capacity being used in 29 manufacturing industries in 1925 - 29, and in 23 mineral industries, 1929, are shown in charts 4 and 5. This shows American industry operating at its best; at its worst, in 1932 and early 1933, some industries were down below 15% of capacity. Hence the obvious reasonableness of Congress's objective of "maximum possible utilization of present productive capacity."

TABLE 1

INDUSTRIAL PRODUCTION IN SIX COUNTRIES
1928 - 1935

Indexes 1928 = 100

	U.S.	Un.K.	Canada	France	Japan	Sweden
1928	100	100	100	100	100	100
1929	107.2	106.0	108.1	109.4	111.4	105.8
1930	86.5	97.9	91.7	110.2	105.6	101.9
1931	73.0	88.8	76.7	97.6	102.1	89.4
1932	57.7	88.4	62.8	75.6	109.0	83.7
1933						
Jan.	58.6)		52.8	78.7	119.3	83.7
Feb.	56.8)--	89.6	51.7	81.1	115.6	85.6
Mar.	54.1)		53.1	82.7	125.7	85.6
Apr.	59.5)		55.3	84.3	124.3	80.8
May	70.3)--	91.5	61.7	85.8	123.5	83.7
June	83.9)		67.7	87.4	112.6	81.7
July	90.1)		70.1	88.2	127.9	83.7
Aug.	82.0)--	91.5	76.0	87.4	132.3	87.5
Sept.	75.7)		76.6	86.6	130.1	86.5
Oct.	68.5)		74.2	85.0	135.2	89.4
Nov.	64.9)--	99.1	71.2	84.3	136.6	96.1
Dec.	67.6)		72.2	83.5	134.4	97.1
1934						
Jan.	70.3)		71.7	83.5	132.1	99.0
Feb.	73.0)--	104.8	71.3	83.7	129.4	100.0
Mar.	75.7)		78.1	81.9	140.1	103.9
Apr.	76.6)		77.6	81.1	140.3	105.8
May	77.5)--	104.6	84.8	79.5	140.6	106.7
June	74.8)		80.8	78.0	142.6	107.7
July	68.5)		81.2	77.2	142.8	103.9
Aug.	65.8)--	100.5	84.7	76.4	145.5	107.7
Sept.	64.0)		82.8	74.8	138.7	107.7
Oct.	65.8)		81.1	74.0	152.6	106.7
Nov.	66.7)--	110.0	82.3	74.0	153.2	109.6
Dec.	76.6)		77.2	73.2	163.9	109.6
1935						
Jan.	82.0)		83.0	73.2	146.6	111.5
Feb.	80.2)--	111.1	85.8	73.2	145.8	113.5
Mar.	79.3)		79.2	73.2	159.0	113.4
Apr.	77.5)		82.9	73.2	159.3	113.5
May	76.6)--	109.9	83.6	72.7	159.4	115.4
June	77.0)		84.6	72.4	153.9	
July	74.		88.3		157.8	
Aug.	77.		93.6			
Sept.	79.		87.0			
Oct.	86.					

Source: League of Nations, "Monthly Bulletin of Statistics"

Indexes (except Japan and United Kingdom) are adjusted for seasonal variation.

TABLE 2

U. S. PRODUCTION DATA FROM
NATIONAL BUREAU OF ECONOMIC RESEARCH
Bulletin 58, Nov. 15, 1935

THE SHARE OF THE UNITED STATES IN WORLD OUTPUT OF SELECTED COMMODITIES, 1929 AND 1934

COMMODITY	RATIO OF DOMESTIC TO WORLD OUTPUT (*in percentages*)		1934 RATIO AS A PERCENTAGE OF 1929 RATIO
	1929	*1934*	
Copper	52.3	18.8	36
Oats	23.7	13.2	56
Wheat[1]	19.1	10.9	57
Cement	39.0	23.6	61
Silver	23.0	14.5	63
Steel	47.5	32.2	68
Maize (corn)	56.3	38.1	68
Cotton	55.9	41.0	73
Coal	41.4	34.2	83
Artificial silk[1]	27.8	23.1	83
Motor cars	84.8	74.2	88
Tobacco	30.2	26.7	88
Petroleum[1]	67.1	59.6	89
Woodpulp	25.8	23.0	89
Gold[1]	11.0	11.8	107
Sugar beets[1]	10.8	12.0	111

[1]Commodities the world output of which increased between 1929 and 1934.

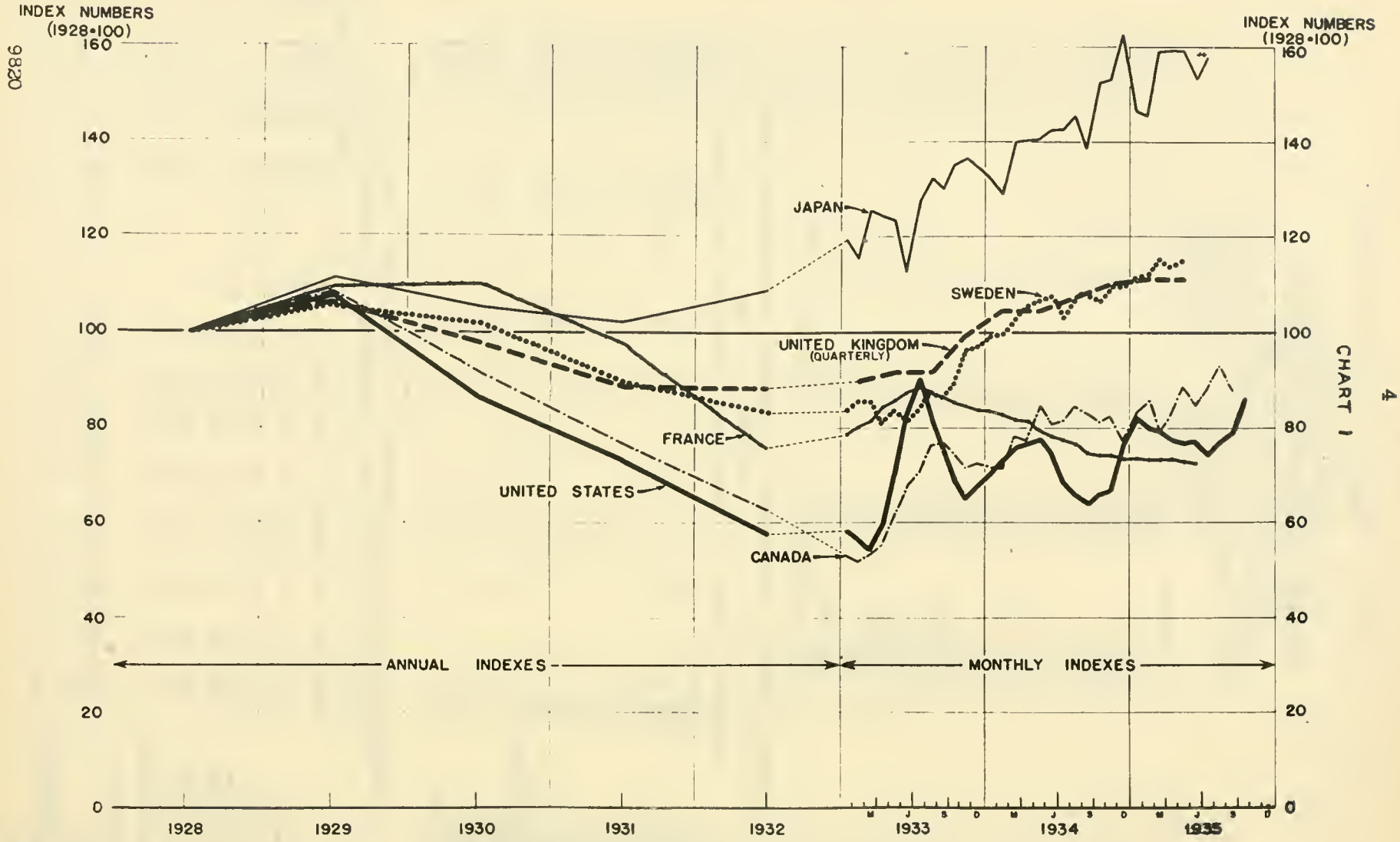
PHYSICAL VOLUME OF PRODUCTION AND POPULATION, UNITED STATES, 1927-1934
(*1927=100*)

YEAR	FARM PRODUCTS	MINERALS	MANUFACTURES	CONSTRUCTION	TOTAL PRODUCTION	POPULATION
1927	100	100	100	100	100	100.0
1928	105	100	108	105	106	101.2
1929	102	109	116	99	110	102.2
1930	102	97	98	90	98	103.1
1931	108	82	83	75	87	103.9
1932	101	68	66	50	71	104.5
1933	98	73	75	38	75	105.2
1934	92	78	80	44	78	105.9
1935 (8 mos.)	(95)	(81)	(90)	(45)	(85)	(106.6)
PERCENTAGES OF 1929						
1929-32	−1	−38	−43	−49	−35	+2.3
1932-33	−3	+ 5	+ 8	−12	+ 4	+0.7
1933-34	−6	+ 5	+ 4	+ 6	+ 3	+0.7
1934-35 (est.)	+3	+ 3	+ 9	+ 1	+ 6	+0.7

CHANGES IN THE PHYSICAL VOLUME OF MANUFACTURING PRODUCTION, 1927-1935
ANALYZED ACCORDING TO THREE CLASSIFICATIONS OF COMMODITIES

	1927	*1928*	*1929*	*1930*	*1931*	*1932*	*1933*	*1934*	*1935* (*8 mos.*)	CHANGES AS PERCENTAGES OF 1929			
										1929-1932	*1932-1933*	*1933-1934*	*1934-1935*
All manufactures	100	108	116	98	83	66	75	80	90	−43	+ 8	+ 4	+ 9
A. Durable goods	100	114	122	95	67	44	52	61	77	−64	+ 7	+ 7	+13
Semi-durable goods	100	102	107	90	90	80	92	91	101	−25	+11	− 1	+ 9
Non-durable goods	100	105	112	108	101	90	93	96	94	−20	+ 3	+ 3	− 2
B. Consumption goods	100	107	115	101	93	80	88	90		−31	+ 7	+ 2	
Capital equipment	100	115	126	96	66	45	52	65		−64	+ 6	+10	
Construction materials	100	104	106	83	59	35	42	46		−67	+ 7	+ 4	
C. Consumption goods													
Durable	100	122	132	105	80	56	66	77		−58	+ 8	+ 8	
Other	100	103	109	100	96	87	94	94		−20	+ 6	0	
Capital equipment and construction materials	100	110	117	90	63	40	47	56		−66	+ 6	+ 8	

INDUSTRIAL PRODUCTION IN THE UNITED STATES AND FIVE FOREIGN COUNTRIES 1928-1935



SOURCE: LEAGUE OF NATIONS, "MONTHLY BULLETIN OF STATISTICS" INDEXES (EXCEPT JAPAN AND UNITED KINGDOM) ARE ADJUSTED FOR SEASONAL VARIATION

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CHART 1

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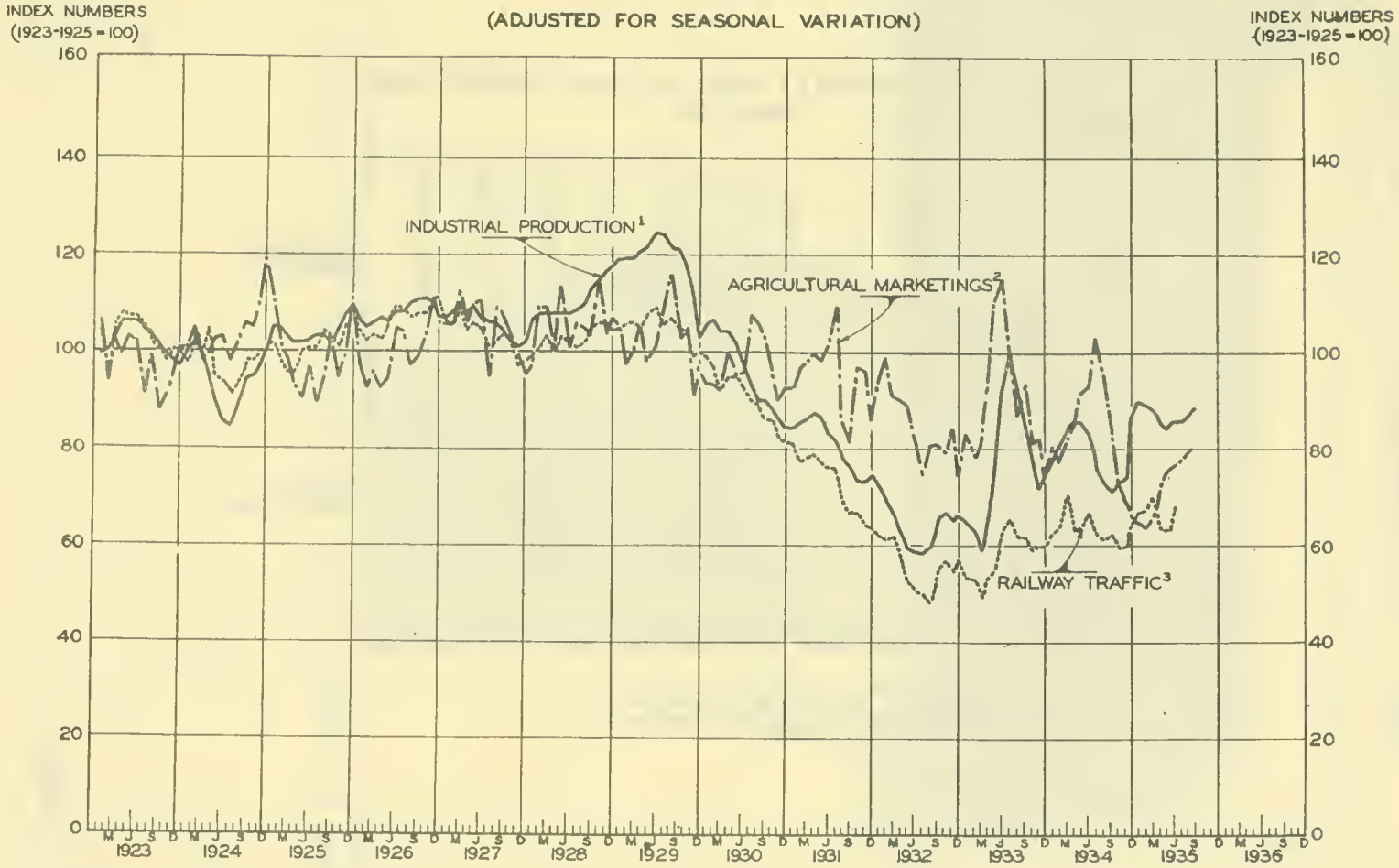
CHART 2

INDUSTRIAL PRODUCTION, AGRICULTURAL MARKETINGS, AND RAILWAY TRAFFIC

JANUARY, 1923 TO DATE

(ADJUSTED FOR SEASONAL VARIATION)



1-FEDERAL RESERVE BOARD INDEX
2-BUREAU OF FOREIGN AND DOMESTIC COMMERCE INDEX, ADJUSTED
3-INTERSTATE COMMERCE COMMISSION, CLASS I STEAM RAILWAYS, PASSENGER MILES AND TON-MILES COMBINED

FOR MONTHLY DATA, SEE APPENDIX, TABLE I-A, B, AND C

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CHART 3

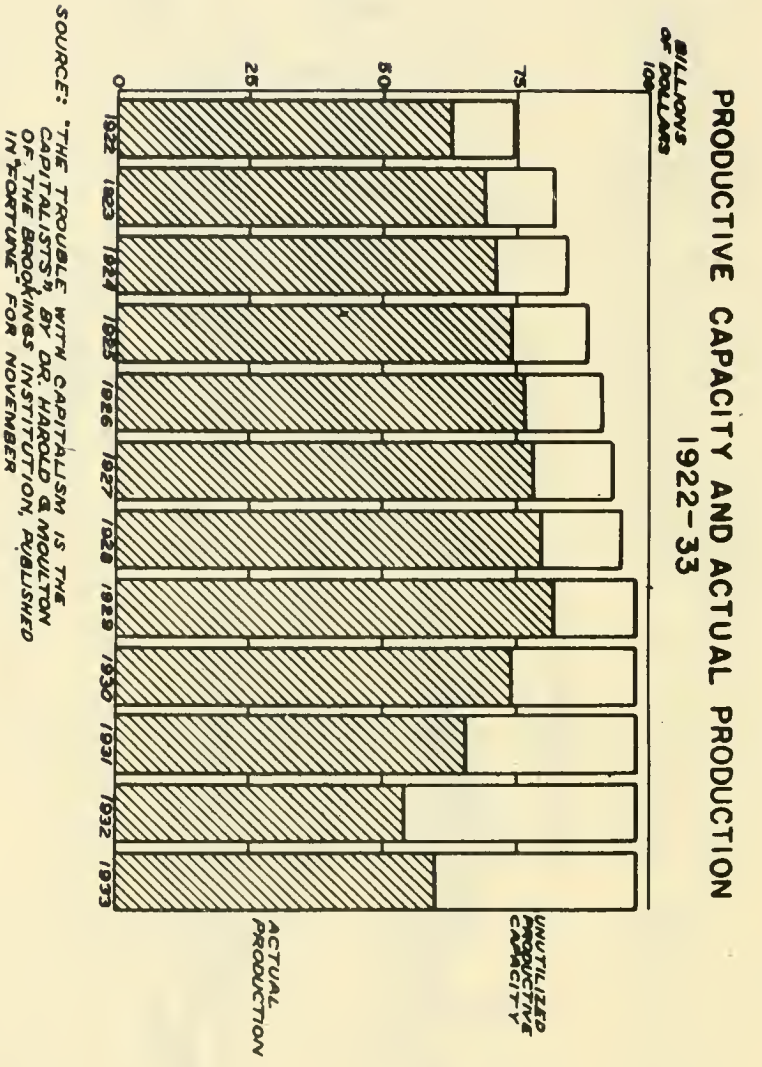
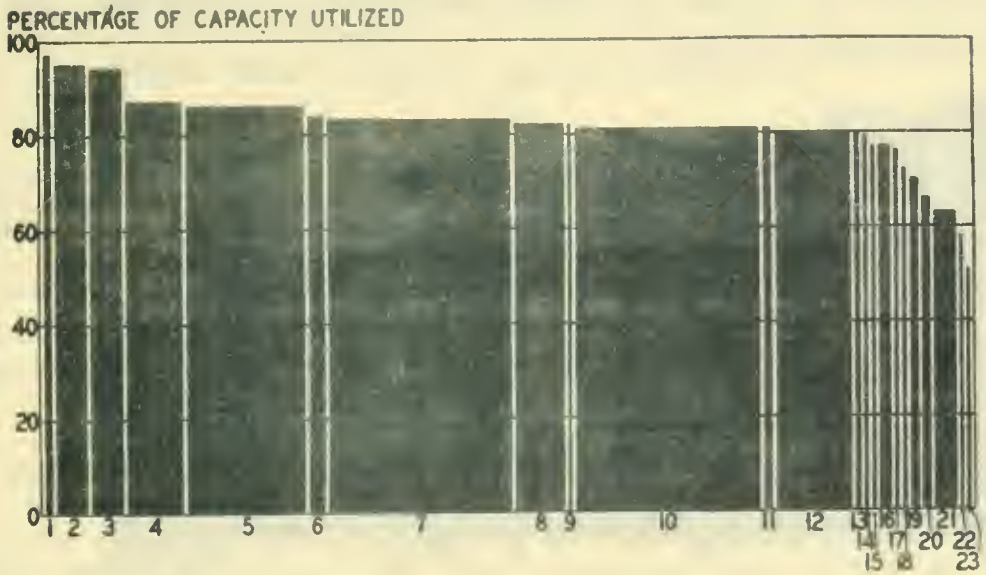

PRODUCTIVE CAPACITY AND ACTUAL PRODUCTION
1922-33
BILLIONS OF DOLLARS
100
75
50
25
0
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
UNUTILIZED PRODUCTIVE CAPACITY
ACTUAL PRODUCTION
SOURCE: "THE TROUBLE WITH CAPITALISM IS THE CAPITALISTS", BY DR. HAROLD G. MOULTON OF THE BROOKINGS INSTITUTION, PUBLISHED IN "FORTUNE" FOR NOVEMBER

CHART 4

UTILIZATION OF MINERAL CAPACITY. 1929



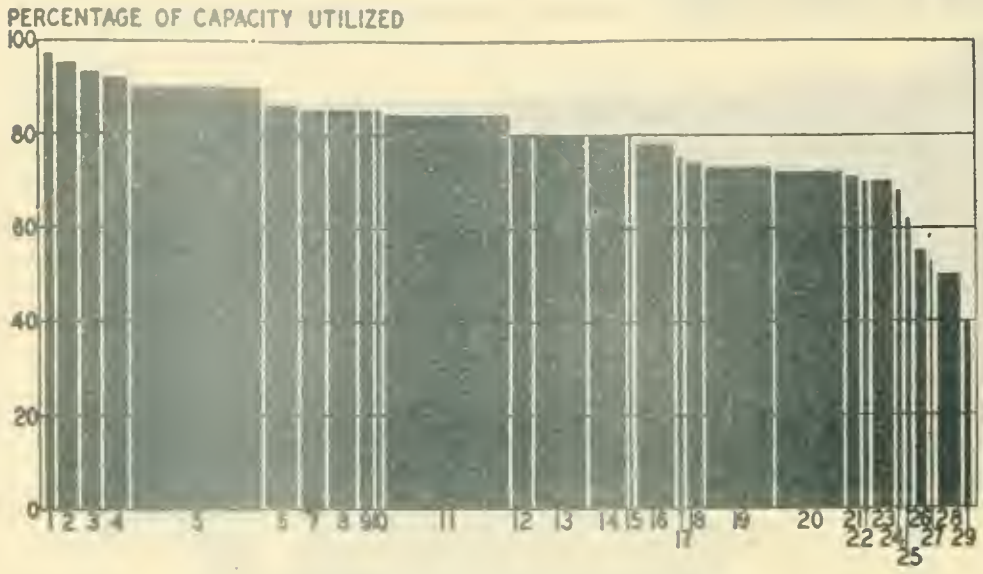
Most of the mineral industries operated within a range of from 77 to 87 per cent of practical capacity in 1929. The percentage of utilization in various representative divisions is shown in Figure 6. The weighted average was about 83. The divisions which fell furthest below the average were mostly small in size, whereas two large divisions rose to about 95 per cent.

1. Copper refineries, electrolytic
2. Byproduct coke plants
3. Iron blast furnaces
4. Copper mines
5. Petroleum refineries
6. Lead mines
7. Bituminous coal mines
8. Cement industry
9. Lead refineries
10. Crude oil production (east of California)
11. Dynamite mills
12. Anthracite collieries
13. Clay mines
14. Lead smelters, Missouri
15. Carbon black plants
16. Zinc mines
17. Fuel briquet plants
18. Zinc, electrolytic plants
19. Zinc smelters
20. Gypsum calcining plants
21. Natural gasoline plants
22. Beehive coke plants
23. Black powder mills

REPRODUCED FROM "THE TROUBLE WITH CAPITALISM IS THE CAPITALISTS", FORTUNE, NOVEMBER, 1935, BY PERMISSION OF DR. HAROLD G. MOULTON.

CHART 5

UTILIZATION OF MANUFACTURING CAPACITY. 1925-29



Among manufacturing industries as in the minerals, there was wide variation in the ratio of actual production to practically attainable capacity, averaging roughly around 80 per cent. In this chart some industries supplying a product with a growing demand, such as full-fashioned hosiery, are shown to have operated in 1929 well above that level, but others could have more than doubled their output if they had been able to sell the enlarged product. Thus, the locomotive industry was operating at a bare 40 per cent. Such important industries as automobiles, cotton manufactures, and shoes were around 80 per cent although if the consumptive needs of the people could have been translated into purchasing power the market demand would have exceeded capacity. In surveying manufacturing capacity, as in other divisions of production, full allowance was made for practical factors of operation.

1. Full-fashioned hosiery
2. Dairy products
3. Steel
4. Paper
5. Printing and publishing
6. Meat packing
7. Silk and rayon manufactures
8. Automobile tire
9. Pig iron
10. Plate glass
11. Automobile
12. Fruit and vegetable canning
13. Cotton manufactures
14. Boot and shoe
15. High explosives
16. Men's clothing
17. Chlorine and allied products
18. Wire
19. Rolled (steel) products
20. Lumber
21. Machine tool
22. Beet sugar
23. Wool manufactures
24. Tin plate
25. Window glass
26. Textile machinery
27. Black powder
28. Flour milling
29. Locomotive

REPRODUCED FROM "THE TROUBLE WITH CAPITALISM IS THE CAPITALISTS", FORTUNE, NOVEMBER, 1935, BY PERMISSION OF DR. HAROLD G. MOULTON.

OUTPUT OF CONSUMERS' GOODS

The output of consumers' goods is, in the last analysis, what the population lives on, and what determines a country's standard of living. General production indexes, heavily weighted as they are with construction materials and semi-finished materials destined for capital goods, will not measure what is made for direct consumption.

Chart 6 - presents a monthly index of consumer's goods production adjusted for population growth (as the population has increased about 12% since the 1923-25 period used as base, 100 today no longer means what it meant in 1923-25. The "normal" is no longer 100, but about 112).

The per capita supply receded below 75% (of 1923-25 = 100) in 1932 and early in 1933. This was including passenger automobiles. The supply of goods other than automobiles receded below 80%

This contraction occurred in spite of a capacity more than ample to continue turning out consumers' goods at the 1929 rate.

The money spent for consumers' goods originates (mostly) in payrolls, salaries, and farm and other entrepreneurial income, and to a lesser extent in dividends and interest received by individuals.

Another, and more comprehensive index, on an annual basis, is that the National Bureau of Economic Research, reproduced herewith.

OUTPUT OF CONSUMPTION GOODS, 1929-1934

	Manufactured Consumption Goods					Non-Manufactured Consumption Goods[1]	Total
	Foods	Clothing	Automotive Products	Other	Total		
1929	100	100	100	100	100	100	100
1930	98	87	71	90	88	105	91
1931	92	89	59	74	81	107	86
1932	82	81	45	58	69	103	75
1933	84	93	52	66	76	102	81
1934	86	88	62	70	78	104	83
Change as a percentage of 1929							
1929-32	-18	-19	-55	-42	-31	+ 3	-25
1932-33	+ 2	+12	+ 7	+ 8	+ 7	- 1	+ 6
1933-34	+ 2	- 5.	+10	+ 4	+ 2	+ 2	+ 2

Source: Bulletin 58, November 15, 1935. National Bureau of Economic Research.

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[1] The classification of non-manufactured consumption goods includes all or a part of the following: fruits, vegetables and truck crops; milk; poultry products; fresh fish; anthracite coal; natural gas; electricity.

This is divided into groups. Clothing output fell from 100 in 1929 to 81 in 1932. Foods fell almost as much. Non-manufactured goods (mostly farm produce, and including anthracite coal and electricity) increased from 100 to 103. This reflects the partial switch from processed to plain foods because of decreased income. Automobile products, being durable, and their purchase being postponable, fell off most.

There is another important consumers' good that might be included with as much justification as passenger automobile production, namely residential building. This practically ceased at the bottom of the depression. Of course, in the case of consumers' durable goods such as automobiles and residences, what the consumer consumes is transportation and shelter from the accumulated stock of such goods. The country's stock of motor vehicles declined from about 23,600,000 as the end of 1929 to 22,177,000 at the end of 1932, or 6%, while the putput of automobile products was down 45%.

Consumer Inventory of Motor Vehicles

	Motor Vehicles in use end of year	Population	Motor Vehicles per 1000 persons
1928	22,122,000	120,690,000	184
1929	23,601,000	122,358,000	193
1930	23,771,000	123,630,000	192
1931	23,078,000	124,446,000	185
1932	22,177,000	124,256,000	177
1933	20,710,000	126,088,000	164

Calculated from registration figures published by the U.S. Bureau of Public Roads. Motor vehicles in use end of 1928 equals all vehicles registered during 1929 less new vehicles sold and registered during 1929, plus government vehicles not registered. NACC "Facts and Figures".

While the supply of essential consumers' goods per head was not seriously contracted, the distribution became worse as the depression deepened. Many may have consumed as much or more of the essentials of those still employed in 1932 as in 1929, but the unemployed could fill only a portion of their usual wants.

PRODUCTION OF CONSUMER'S GOODS PER CAPITA BY MONTHS 1923-1935

9820

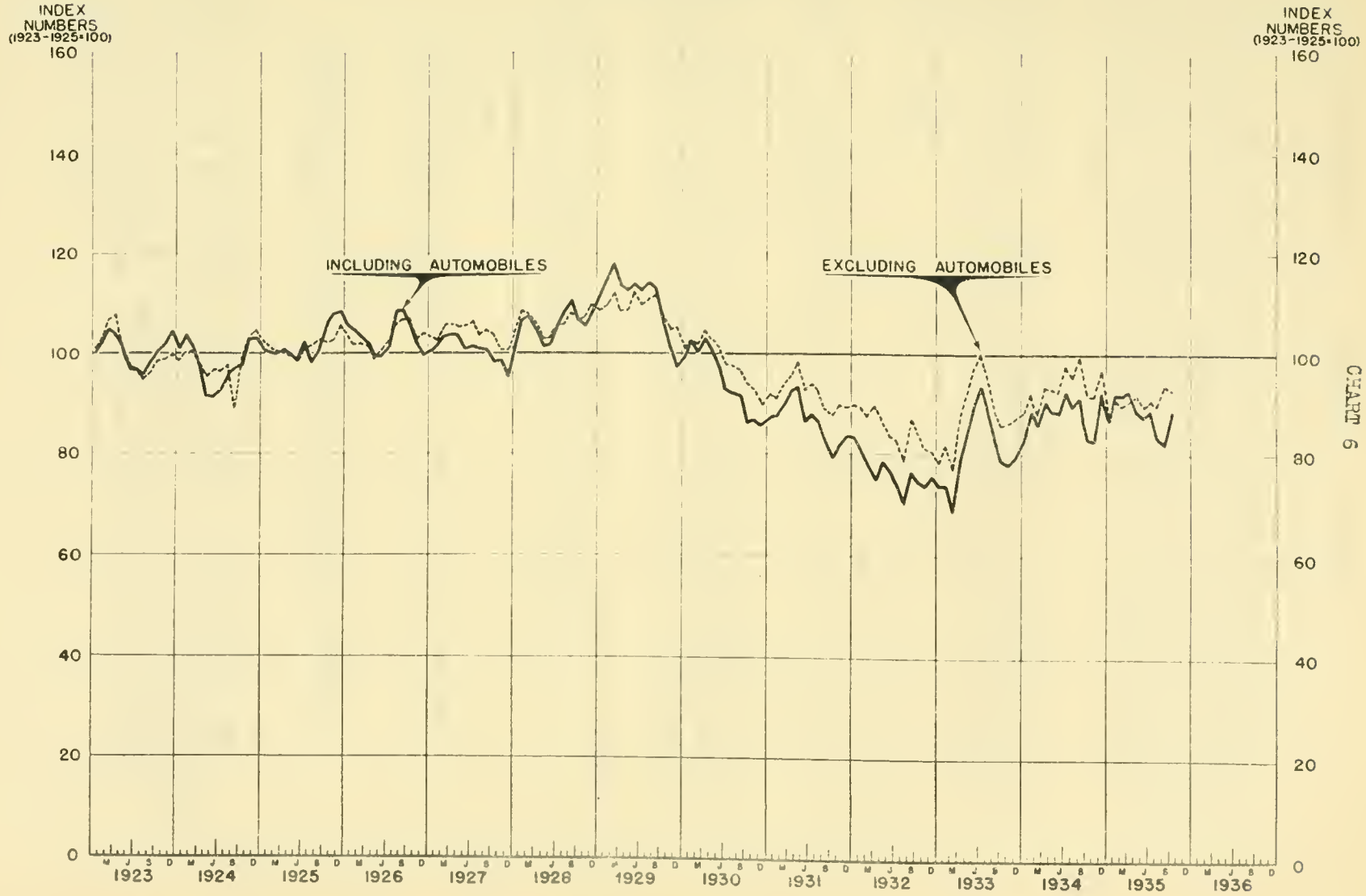

CHART 6

11

SOURCE: BASED ON Y. S. LEONG'S ARTICLE IN "JOURNAL OF AMERICAN STATISTICAL ASSOCIATION," JUNE, 1935, VOL. 30, PAGES 381-376

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NO. 443

CAPITAL EQUIPMENT AND CONSTRUCTION MATERIALS

Production of capital goods and construction materials fell in 1932 to 40% of its 1927 level and 35% of its 1929 level, according to the National Bureau of Economic Research. Here was where the depression was focussed. These industries, by and large, exist only to build and install capacity for producing consumers' goods. Meanwhile, existing capacity to produce consumers' goods was ample to continue supplying them at the 1929 rate.

When demand for consumers' goods shrinks even moderately, even maintenance work can be postponed, and actual new capacity will be required only in exceptional industries. Under these conditions capital goods demand may go almost to zero. An extreme example is railroad locomotives. Only two were ordered in 1932 compared to 1,044 in 1929 and 2,604 in 1922.

Table 3 includes production records for a number of capital goods industries. The volume contraction in 1932 was double or triple the contraction in consumers' goods.

The situation of these industries is generally so desperate at depression lows, as to entitle them to separate consideration. Hence, the Durable Goods Problem: How can the violent swings in production be smoothed out? How can these industries be quickly reactivated in a depression?

The funds for purchasing capital goods and construction materials for maintenance and additional capacity came mainly from

(1) Current profits of corporations not disbursed as dividends

(2) Cash balances of corporations (Over and above working capital requirements)

(3) Savings of individuals invested in new corporate securities and mortgages through insurance companies, savings banks, and the investment market.

Data on corporation profits are given in Table 4. The cash position of large corporations in 1932 (Table 32 and 33) was substantially as good as in 1928 and 1929. Not a few companies have recently been able to expand out of accumulated cash reserves and current profits, without recourse to the capital markets. Public flotation of new capital issues (including refunding) have shown little recovery so far (spring of 1936).

TABLE 3

PRODUCTION OF CERTAIN COMMODITIES
1929 - 1932
(All figures are monthly averages unless otherwise specified)

	Page	1929	1932	Per cent change
CONSUMERS' PERISHABLE GOODS				
Wheat flour (000's of bbls.)	159	9,609	8,395	- 13
Sugar meltings, 8 ports, long tons	169	398,059	309,713	- 22
Butter (apparent consumption) thousand pounds	147	129,835	140,517	+ 8
Cheese (apparent consumption) thousand pounds	147	38,355	45,053	+ 18
Evaporated milk (thousand lbs.)	149	150,411	150,442	0
Beef and Veal, inspected (thousands of pounds)	161	393,965	366,171	- 7
Pork, inspected slaughter (thousands of pounds)	163	702,527	652,545	- 7
Lard (thousands of pounds)	163	146,929	131,122	- 11
Lamb and Mutton (thousands of lbs.)	165	45,458	56,793	+ 25
Canned Salmon, shipments (cases)	169	456,825	481,238	+ 5
Candy, sales by mfrs. ($000)	169	28,868	17,330	- 41
Cigarettes, withdrawals (000's)	171	9,919,904	8,632,157	- 13
Anthracite coal (thousand shorttons)	173	6,152	4,155	- 33
Gasoline, at refineries (thousand barrels)	179	36,257	33,719	- 10
Gasoline, at natural gas plants	179	4,356	3,023	- 4
Electricity, million kwh.	143	815	999	+ 23
Newsprint (consumed by publishers) short tons	243	190,244	141,326	- 26
CONSUMERS' SEMI-DURABLE GOODS				
Gloves and Mittens (dozen pair)	187	261,396	162,803	- 38
Shoes (thousands of pairs)	187	30,117	26,107	- 15
Pneumatic casings (thousands)	251	4,581	2,672	- 58
Inner tubes (thousands)	251	4,589	2,459	- 47
Rubber and Canvas footwear (thousand pair)	253	7,410	3,980	- 46
Cotton textiles (weekly average) thousand yards	265	67,917	52,937	- 22
Rubber heels (thousand pair)	253	19,344	12,937	- 33
Silk Deliveries (bales)	267	51,646	46,152	- 10
Wool Consumption (thousand lbs.)	269	48,797	32,127	- 34
CONSUMERS' DURABLE GOODS				
Passenger Automobiles	275	330,818	94,531	- 75
Vacuum Cleaners (shipments)	231	104,426	37,255	- 64
Residential Building:				
Projects, number of	33	9,208	3,171	- 65
Floor space, thou. sq. feet	33	32,306	6,134	- 81
Valuation ($000)	33	159,644	23,339	- 85

TABLE 3 - Cont'd.

	Page	1929	1933	Per cent change
CAPITAL GOODS				
Steel barrels, number	215	1,303,897	765,892	- 42
Steel boilers, new orders, thousand square feet	215	1,500	304	- 80
Foundry equipment, shipments index number	219	189.8	21.1	- 89
Machine tools, shipments, index no.	221	285	38	- 87
Woodworking machinery, shipments (thousand dollars)	223	1,595	184	- 88
Power switching equipment (dollars)	231	169,728	20,760	- 88
PRODUCERS' RAW MATERIALS AND INTERMEDIATE PRODUCTS				
Chiefly for Producers' Goods				
Explosives (new Orders)	127	40,383	18,959	- 53
Sulphur quart av. (long tons)	127	589,409	218,987	- 63
Sulphuric acid (short tons)	127	188,565	79,382	- 58
Electric power, wholesale (million kwh.)	143	3,694	2,599	- 30
Bituminous coal (thousand short tons)	173	44,582	25,809	- 42
Lumber, F. R. B. index	11	91	25	- 72
Iron ore, consumption (thousand long tons)	199	5,304	857	- 84
Pig Iron, (Thousand long tons)	201	3,524	724	- 80
Steel Ingots (thousand long tons)	213	4,526	1,110	- 76
Steel Sheets (short tons)	217	323,948	93,423	- 71
Fabricated structural steel	217	299,819	79,000	- 74
Track work	217	13,510	2,273	- 83
Copper, refined, domestic shipments (short tons)	227	93,284	27,997	- 70
Lead, production (short tons)	227	59,737	23,831	- 60
Zinc (short tons)	229	52,633	17,794	- 66
Chiefly for Consumers' Goods				
Chemical wood pulp	235	26,027	20,543	- 23
Book paper (short tons)	239	124,826	78,828	- 37
Mechanical wood pulp	237	136,471	100,254	- 27
Box board	241	250,278	179,337	- 28
Writing paper (short tons)	243	50,633	38,358	- 24
UNCLASSIFIED				
Electrical goods, quarterly, new orders ($000)	231	266,376	70,666	- 73

TABLE 7 - Cont'd.

	Page	1929	1932	Per cent change
RETAIL TRADE				
Five-and-Ten Chain, index number (Variety Chain)	45	107.1	180.8	- 24
A. & P. Tea Company ($000) value	47	85,660	73,890	- 15
" " " (tonnage)	47	393,148	442,420	+ 11
Three restaurant chains ($000)	47	4,968	3,667	- 36
W. T. Grant ($000)	49	5,453	6,109	+ 11
Department store sales, index	49	111	69	- 38
Mail order sales ($000)	51	61,948	38,344	- 37
J. C. Penney	49	17,474	12,939	- 26

Source: Survey of Current Business. Col. 2 is page reference to the 1932 Base Book.

Note of classification: Assignment of products to one class or another is on the basis of its predominant use. Thus, some bituminous coal is used for house-heating by consumers, but as most is used by railroads, factories and power houses, it is classified as a producers' non-durable good. Some goods which receive further processing, as cotton textiles and newsprint, are raw materials from standpoint of some producers, but are classified in the same class as the product they will ultimately become. Thus, since cotton dresses and domestic "linens" are consumers' goods, cotton textiles are so classified.

TABLE 4

SOME SOURCES OF PURCHASING
POWER FOR CAPITAL GOODS
AND CONSTRUCTION MATERIALS

	Corporation Profits 657 Industrial Cos. a/	Cash and Equivalent 418 Industrial Cos. b/	New Capital Issues c/	Admitted Assets of Life Insurance Cos. d/	Increase in Admitted Assets
1926	1919		3754	10,432	
1927	1872	3078	4657	11,597	1165
1928	2207	3731	5346	12,889	1292
1929	2595	3618	8002	14,094	1205
1930	1528	3608	4483	15,253	1159
1931	715	3544	1551	16,324	1071
1932	25	3326	322	16,917	593
1933	568	3160	160	17,217	300
1934	844		175	18,040	823
1935, Sept.				18,887	847

a/ Standard Trade and Securities Service, May 17, 1935. p. 546

b/ Standard Earnings Bulletin, July 15, 1934

c/ Compiled by Division of Review, Statistics Section, from Survey of Current Business.

d/ Assets of large life insurance companies. Series revised in 1929; 1928-29 comparison not exact.

EMPLOYMENT

"It is hereby declared to be the policy of Congress . . . . to reduce and relieve unemployment".

Unemployment is the evil of the depression which calls most urgently for solution. It outweighs all other features of the situation.

Unemployment is the human side of the unused physical capacity figure, unused human resource, idle hands and idle brains. It is a loss to the nation as well as to the individual unemployed. The man-hours that have gone to waste during the depression could have duplicated the entire railroad system not once, but twice or more.

Table 5 shows unemployment in the United States and foreign countries. The foreign countries' data are for manufacturing and other mechanical industries. Their representativeness ranges from very good for the United Kingdom down to poor for Poland and Japan. Unemployment in the United States for the twelve months ending April, 1933, was about 35% among all non-agricultural workers, and almost 50% among employees in manufacturing, transportation and construction. Unemployment figures in no other country were as high as this.

Chart 7 shows the magnitude of the problem. At the bottom of the depression there were about 50 million employables, (not including wives and other individuals not normally working for wages or salaries, but forced into the labor market for the time being), of which roughly 35 million either employed by others or self-employed, and 15 million out of work. The number employed rose rapidly in 1933, then levelled off and even dipped once or twice. It has since been advancing again, but there still remains a large number to reabsorb.

Chart 8 shows indexes of employment in manufacturing, agriculture and railroads. The agricultural employment includes hired labor only. Relative to pre-depression levels railroads have given least employment during the depression, agriculture most, and factories an intermediate amount. Factory employment has now recovered about half way, and now gives at least as good a showing as agriculture, and possibly better. Agricultural labor (as reported) and railroad employment have not recovered very much as yet, both still being near the levels of 1932-33.

Where is the unemployment? Some industries may actually have employed more in 1932 than in 1929; gold mining and electrical refrigerators, for instance. At the other extreme there were probably some which employed less than one-tenth of their 1929 labor force. Most of the unemployment was and is in the capital goods and allied industries.

Table 7 shows employment and man-hours in a number of manufacturing industries, and residential building. The six highest ranking are non-durable goods industries; the six lowest ranking, durable goods industries.

Rayon and residential building represent the two extremes, the one, even in January - April, 1933, employing almost as many as in 1929, the

TABLE 5
UNEMPLOYMENT IN VARIOUS COUNTRIES

Per Cent of Workers Unemployed

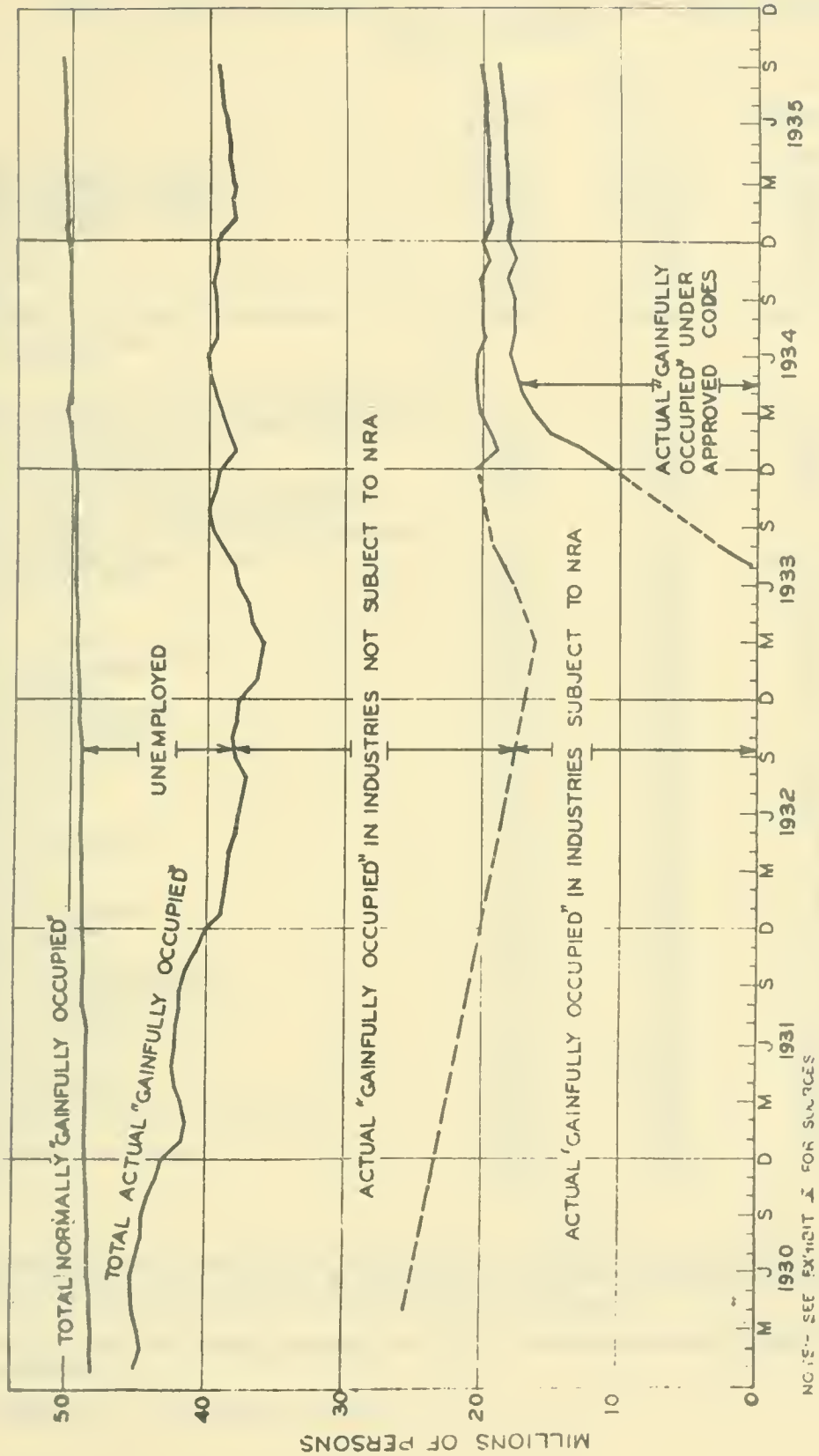
	1929	1932	1932-33*
United States			
All workers	3.7	25.8	27.6
Non-agricultural workers	4.8	32.2	34.6
Manufacturing, Railroads, Construction)	5.7	42.7	45.3
Germany		30.2	29.9
Australia	11.1	29.0	28.6
Austria		24.8	
Belgium	1.3	19.0	19.2
Canada	5.7	22.0	23.1
Denmark	15.5	31.7	33.1
Japan		6.9	6.6a/
Norway	15.4	30.8	33.2
Netherlands	7.5	29.9	31.2
Poland	4.9	11.9	10.8a/
United Kingdom	8.2	17.6	17.8
Sweden	10.7	22.8	24.2
Switzerland	1.7	9.1	10.5
Czechoslovakia	2.2	13.5	15.3

*May, 1932 to April, 1933, inclusive.
Sources: A.F. of L Estimate, revised (discontinued in 1934),
League of Nations
Monthly Bulletin of Statistics

a/ Coverage said to be poor
Unemployment figures for foreign countries cover manufacturing and other non-agricultural industries.

CHART 1

WAGE EARNERS NOW DIRECTLY AFFECTED BY NRA CODES COMPARED WITH TOTAL OF WAGE EARNERS IN ALL INDUSTRIES AND TOTAL NORMALLY "GAINFULLY OCCUPIED"



NOTE:- SEE EXHIBIT A FOR SOURCES

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TABLE 6

SHIFTS IN GAINFULLY OCCUPIED 1920-1930, COMPILED FROM THE CENSUS OF OCCUPATIONS
(Unit: Thousands)

	Jan. 1 1920	April 1 1930	Change	Per Cent
POPULATION	105,711	122,775	17,064	16.1
GRAND TOTAL GAINFULLY OCCUPIED	41,614	48,830	7,216	17.3
AGRICULTURE, FISHING, FORESTRY	10,936	10,722	-214	-2.0
EXTRACTION OF MINERALS	1,090	984	-106	-9.7
Coal	734	622	-112	-15.3
Oil & Gas	86	105	19	22.1
Others	270	257	-13	-4.8
MANUFACTURING AND MECHANICAL INDUSTRIES (Including building and hand trades)	12,832	14,110	1,278	10.0
(Number at work in factories, estimated from BLS Index and Census of Manufactures)	(9,610)	(8,090)	(-1,520)	(-15.8)
TRANSPORTATION & COMMUNICATION	3,097	3,843	746	24.1
Motor Vehicle Drivers	285	972	687	241.1
Laborers, road and street transportation	116	290	174	150.0
Steam railroads, selected occupations	1,218	1,120	-35	-7.4
(Number at work in steam railroads, according to Interstate Commerce Commission)	(1,960)	(1,635)	(-325)	(-16.6)
Telephone Operators	190	249	59	31.1
Others	1,061	1,946	885	83.4
TRADE	4,258	6,081	1,823	43.0
Bankers, brokers, insurance agents, etc.	297	508	211	71.0
Real estate agents	149	240	91	61.1
Retail dealers	1,328	1,704	376	28.3
Salesmen & saleswomen	1,192	2,069	877	73.6
"Clerks" in stores	414	402	-12	-2.9
Laborers and helpers in stores	125	209	84	67.2
Other	753	949	196	26.0
PUBLIC SERVICE	738	856	118	16.0
PROFESSIONAL	2,171	3,254	1,083	49.9
Lawyers and judges	123	161	38	30.9
Musicians	130	165	35	26.9
Teachers	752	1,044	292	38.8
Technical engineers	136	226	90	66.2
Trained Nurses	149	294	145	97.3
Others	881	1,364	483	54.8
DOMESTIC AND PERSONAL SERVICE	3,380	4,952	1,572	45.7
Barbers, beauty shops, etc.	216	374	58	+26.9
Laundry operatives	121	241	120	99.2
Cooks and other servants	1,271	1,999	728	57.3
Others	1,674	2,338	664	39.5
CLERICAL OCCUPATIONS	3,111	4,025	914	29.4
Bookkeepers, cashiers, accountants	735	931	196	26.7
Clerks	1,488	1,997	509	34.2
Stenographers & typists	615	811	196	31.9
Others	273	286	13	4.8

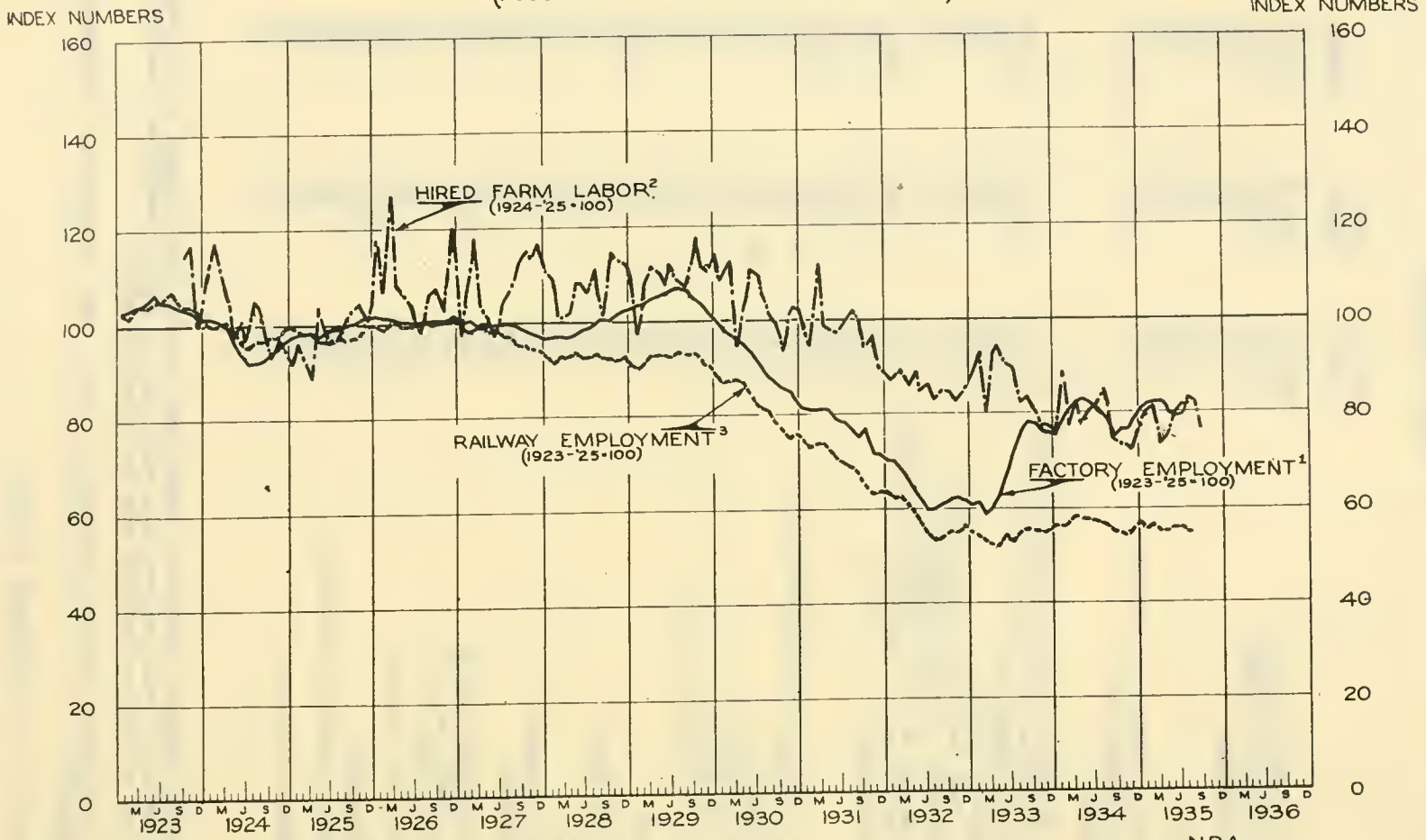
NOTE: Gainfully occupied, according to Census usage, does not mean at work, but includes, "all persons 10 years and over who usually follow a gainful occupation, even though they may not have been employed when the census was taken."

Of the 48,830,000 gainfully occupied as of April, 1930, approximately 4,386,000 were unemployed.

Figures in ( ) not included in totals.

CHART 8

FACTORY EMPLOYMENT, RAILWAY EMPLOYMENT, AND HIRED FARM LABOR
1923 TO DATE
(ADJUSTED FOR SEASONAL VARIATION)



1- FEDERAL RESERVE BOARD INDEX
2- BASIC DATA FROM DEPARTMENT OF AGRICULTURE
3- BASIC DATA FROM INTERSTATE COMMERCE COMMISSION

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FOR MONTHLY DATA, SEE APPENDIX, TABLE III-A, B, AND C

TABLE 7

Indexes of Employment in Major Industries in January-April, 1933*

Compared to 1929 = 100

	As Measured By Numbers Employed		As Measured By Man-Hours of Employment	
	Index, 1929 = 100	Loss from 1929	Index 1929 = 100	Loss From 1929
Rayon	98.6	1.4	91	9
Boots and Shoes	84.0	16.0	74	26
Meats	79.5	20.5	70	30
Cotton Goods	74.2	25.8	68	32
Knit Goods	81.7	18.3	68	32
Woollen and Worsted	76.3	23.7	68	32
Leather	75.4	24.6	67	33
Petroleum Refining	76.1	23.9	62	38
Paper and Pulp	75.0	25.0	57	43
Fertilizer	61.8	38.2	57	43
Chemicals and Drugs	66.2	33.8	53	47
Railroads	57.8	42.2	52	48
Bituminous Coal	67.6	32.4	41	59
Anthracite Coal	54.3	54.7	39	61
Motor Vehicles	47.1	52.9	33	67
Furniture	46.3	53.7	32	68
Auto Tires and Tubes	47.2	52.8	27	73
Cement	40.3	59.7	27.	73
Iron and Steel	45.1	54.9	22	78
Lumber	26.1	73.9	20	80
Agricultural Implements	25.2	74.8	15	85
Brick, Tile, etc.	23.8	75.2	15	85
Residential Building	9.0	91.0	9	91

(*) Seasonal Variation allowed for.

Index numbers calculated from data published by Bureau of Labor Statistics, with following exceptions: Railroad data based on number employed and man-hours worked as published by the Interstate Commerce Commission; residential building indexes are approximate and based on building contracts awarded, as reported by F. W. Dodge, and building costs as estimated by Engineering News Record.

As hours-per-week from which to calculate total man-hours are not available from the Bureau of Labor Statistics for all industries in 1929, estimates bases on National Industrial Conference Board or other available data were used in some cases.

TABLE 8

EMERGENCY RELIEF
From
PUBLIC FUNDS

Selected Months	Number of Families and Persons (thousands)		
	Families	Single Persons	Total Persons
March, 1933	4,560		
November, 1933	3,365	461	15,080
June, 1934	3,767	561	16,886
September, 1934	4,075	657	18,316
January, 1935	4,615	850	20,654
September, 1935	3,254	666	14,192 a/

a/ Not including those transferred to Rural Rehabilitation Program in July, 1935

Total Obligations Incurred for Relief from all Public Funds
(millions of dollars)

	Federal		State		Local		Total
	Amount	%	Amount	%	Amount	%	
1933	481	60.6	113	14.3	199	25.1	793
1934	1066	72.2	185	12.6	225	15.2	1476
1935*	1179	73.4	163	10.6	198	12.8	1540

(*) 9 Months

Source: Report of the Federal Emergency Relief Administration.

B. THE PROBLEM OF ADJUSTMENT TO CHANGE

Two types of change were brought to the attention of N.R.A. These were, the displacement of labor by labor-saving devices, and industrial migrations from one region to another. Some very broad measures of change are provided in Table 9, taken from "The Gross National Product and its Components", by Clark Warburton, Journal of the American Statistical Association, December, 1934.1/ The amount of consumers' expenditures, relative as well as absolute, flowing into each of the broad classes of goods and services shows pronounced shifts during the ten year period 1919 - 1929. Food, attire and social organizations grew scarcely at all, while shelter, transportation, education, recreation and stimulants increased markedly, especially the last two.

TECHNOLOGICAL DISPLACEMENT OF LABOR

To the unemployment due to decline in production is added the unemployment due to elimination of workers by labor-saving machinery from some industries faster than they can acquire new skills and be absorbed by other industries. Chart 9 brings out clearly a striking contrast between the relation of factory production and employment before and after 1920.

Before 1920, manufacturing production and employment moved up together fairly well, after 1920 they pulled apart.

Chart 10 presents some factors in manufacturing. Production (Federal Reserve Board Index), employment and payrolls (Bureau of Labor Statistics are shown, and an index of average hourly wages, as estimated by the National Industrial Conference Board. Dividing the index of payrolls by the index of hourly earnings gives a rough estimate of man-hours. Dividing production by man-hours gives an output per man-hour, the topmost line on the chart, rising rapidly throughout the period. The labor cost per unit of output may be approximated by dividing payrolls by production. Although this procedure, on account of unavoidable imperfections in the basic data, may not be right in detail, it reveals highly interesting trends.

Output per man-hour showed a rapid advance during the twenties, and labor cost per unit a rapid decline. The period showed a net loss in employment, apparently workers eliminated from one manufacturing industry by technological improvements were not all reabsorbed by other manufacturing industries. At the three principal peaks of manufacturing activity in 1920, 1923 and 1929 there were progressively fewer at work in factories.

1/ These amounts are considerably larger than the national income figures issued by the Department of Commerce, being prepared on a different basis, and including certain items not included in the Department's compilation, such as "imputed income."

TABLE 9

The Gross National Product and Its Components

TABLE a

VALUE OF THE GROSS NATIONAL PRODUCT, 1919–1929 *

(Millions of dollars)

A. Consumers' goods and services

	1929	1927	1925	1923	1921	1919
Food and non-alcoholic beverages	20,055	19,413	18,731	16,626	15,151	19,654
Shelter and home maintenance	22,356	22,515	23,123	21,900	19,744	15,671
Attire	13,669	13,046	12,714	13,153	10,001	12,367
Transportation	8,122	7,123	6,928	6,051	4,646	4,475
Communication	935	789	748	659	546	539
Health and medical care	3,556	3,179	2,788	2,503	2,059	2,123
Protective and civil services	1,652	1,396	1,297	1,259	1,166	1,092
Education and reading matter	3,626	3,234	2,883	2,524	1,733	1,410
Social organizations	1,458	1,411	1,449	1,353	1,441	1,308
Recreation and art goods	3,658	2,831	2,392	2,016	1,478	1,010
Stimulants	6,230	5,227	5,227	5,183	2,585	3,034
Total consumers' goods and services †	85,317	79,997	77,704	71,918	61,479	60,003

B. Capital goods

	1929	1927	1925	1923	1921	1919
Structures and equipment	17,442	16,941	16,866	13,840	8,324	10,872
Changes in inventories	571	156	3,164	2,784	−4,469	6,819
Change in foreign investment	221	405	520	−21	875	2,236
Total capital goods	18,234	17,502	20,550	16,603	4,730	19,927
Value of gross national product—all items	103,551	97,499	98,254	88,521	66,209	79,930

* Figures for 1929 built up from detailed items. Estimates for other years based on index numbers especially prepared for this purpose.

† Except for 1929 the sum of the consumers' goods and services as itemized does not exactly equal the figure given for the total. This is because adjustments have been made in the total which cannot be made in the separate items

Table b. is a first approximation to a measurement of the flow of income and other funds available for purchasing final products.

TABLE b

TOTAL AMOUNT OF FUNDS AVAILABLE FOR PURCHASING FINAL PRODUCTS, 1919–1929

(Preliminary estimates—millions of dollars)

	1929	1927	1925	1923	1921	1919
Aggregate income of individuals *	92,950	86,874	83,712	73,193	61,089	64,701
Institutional income †	9,004	7,265	8,285	7,196	−314	7,123
Business allowances ‡	9,204	8,529	7,893	7,228	6,603	6,375
Insurance benefits §	2,127	1,685	1,374	1,203	951	887
Credit expansion ‖	−28	525	1,751	1,177	−2,583	2,999
Total	113,257	104,878	103,015	89,997	65,746	82,085

* Figure for 1929 from Maurice Leven, *America's Capacity to Consume*, p. 206. Estimates for other years based on the King-Leven estimates of national income and on capital gains as reported in *Statistics of Income*.

† Includes corporate surplus, income of endowed institutions, and governmental revenue drawn from business enterprises but used in providing services to persons or for capital purposes.

‡ Includes depreciation and depletion allowances, and crude allowances for bad debts in retail accounts and for goods and services furnished free to employees and customers but not included in individual incomes.

§ Payments to policyholders by insurance companies

‖ Change in outstanding volume of means of payment.

Manufacturing Employment and Production

	Average Number Employed (000's)	FRB Index of Manufacturing Production
1919	9,041	84
1929	9,145 - E	87
1923	8,788	101
1929	8,839	119

except for a slight pick-up in 1929.

The National Bureau of Economic Research presents in Economic Bulletin 58 the following estimates of output per wage earner and per man hours during 1929 - 1934.

OUTPUT PER WAGE EARNER AND PER MAN HOUR IN MANUFACTURING
ESTIMATES* OF CHANGES, 1929 - 1934.

(1)

Year	Physical Output of Manufacture	Average No. of wage earners	Average Hours Worked	Man Hours (3) x (4)	Output Per Wage Earner (2) ÷ (3)	Output Per Hour Man (2) ÷ (5)
1929	100	100	100	100	100	100
1930	84	87	93	81	97	104
1931	72	74	87	64	97	112
1932	57	62	77	48	91	118
1933	65	69	76	53	94	123
1934	69	78	70	55	88	125

In the light of apparent trends in the above factors how far would a recovery in production have to go to restore manufacturing employment to the pre-depression level?

Associated with this movement away from manufacturing was a movement into the so-called service occupations; real estate, finance, retail trade, the professions, other "white collar" occupations, and domestic and personal services. See Table 6. It should be added that "gainfully occupied" in Census usage does not mean "at work", but includes "all persons 10 years old and over who usually follow a gainful occupation, even though they may not have been employed when the census was taken." It is estimated that over 4,000,000 of the 48,850,000 gainfully occupied as of April, 1930, were out of work. How many of the several million additions to those gainfully occupied in the above service occupations were firmly absorbed and

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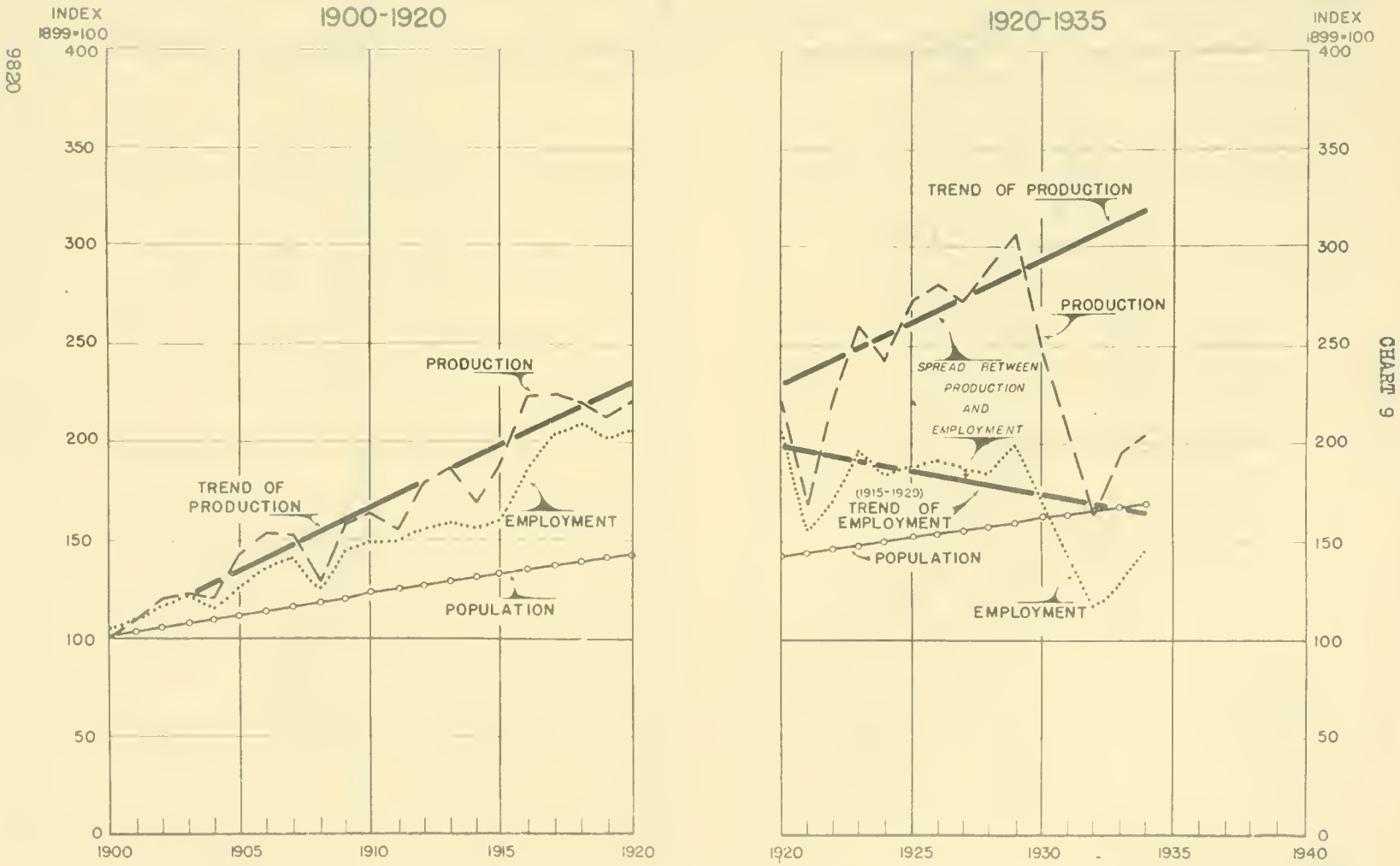
* These figures, which must not be accepted as precise measurements, apply only to activity in manufacturing industries as a whole.

FACTORY PRODUCTION AND EMPLOYMENT



SOURCE DATA FROM "RECENT ECONOMIC CHANGES IN THE U.S." 1929 VOL 2 - 454
FEDERAL RESERVE BULLETIN, POPULATION INDEX BASED ON CENSUS DATA.

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CHART 9

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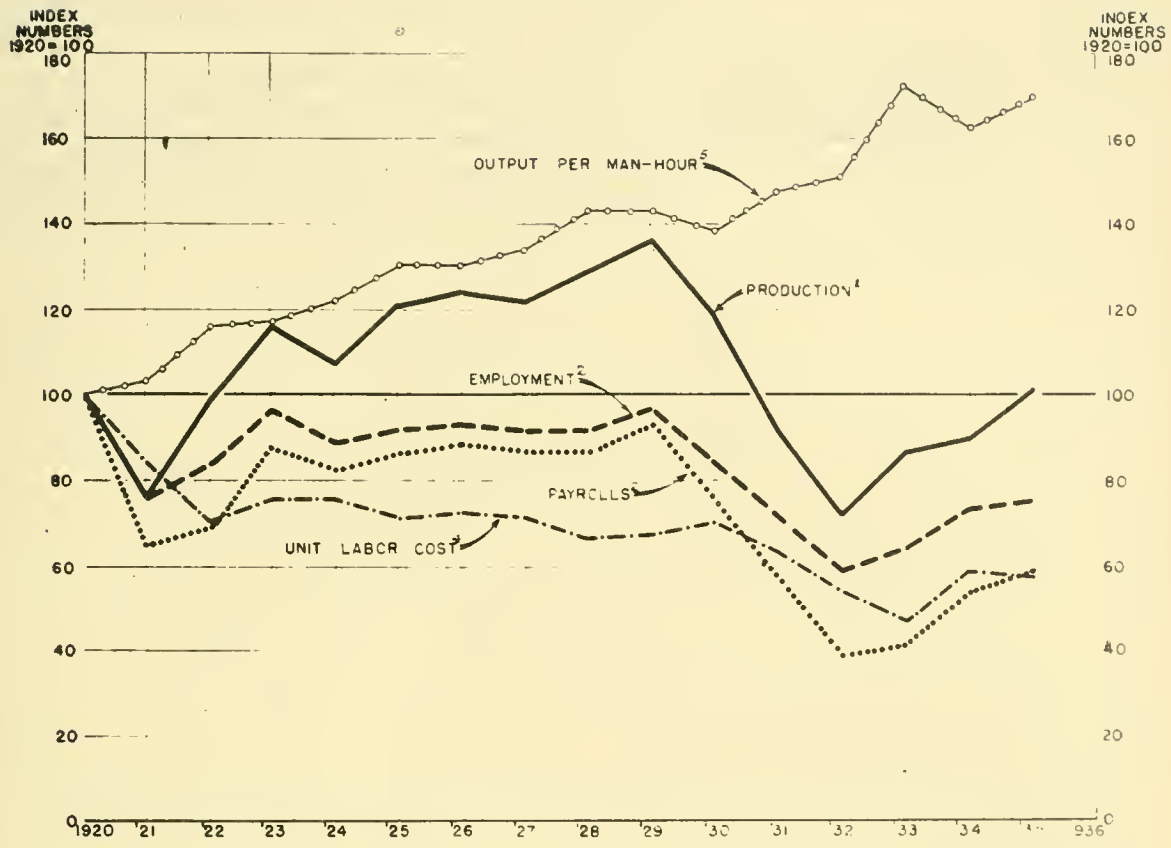
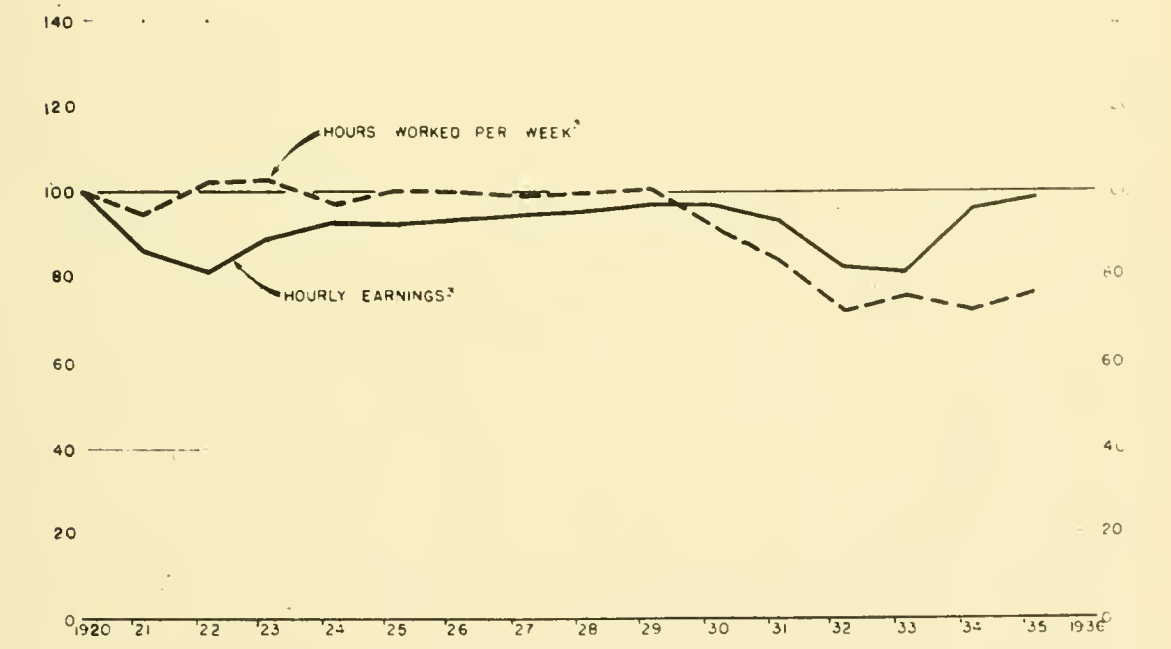
FACTORS OF MANUFACTURING PRODUCTION

CHART 10





SOURCES [1]FEDERAL RESERVE BOARD
[2]BUREAU OF LABOR STATISTICS, REVISED SERIES
[3]NATIONAL INDUSTRIAL CONFERENCE BOARD
[4]PAYROLLS ÷ PRODUCTION
[5]HOURLY EARNINGS ÷ UNIT LABOR COST

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established therein? And in how many cases not?

The very large number engaged in personal service occupations directly dependent on consumer purchasing power, should warn one against overemphasizing the durable goods problem. Production of consumers goods and services in 1929 was more than four times the production of capital goods, in terms of value.

REGIONAL SHIFTS

Industrial migration imposes obvious problems on the region from which the Industry is migrating - loss of employment to the residents, loss of taxes to the community, total or almost total paralysis of the capital goods industry in the evacuated regions. Quite apart from ultimate longtime benefits, to the country as a whole, the question arises whether these shifts do or do not impose strains on the economy which represent a net loss for a short time, at any rate.

One such shift, which has been widely observed, is the movement to the suburbs for residence purposes made possible by the automobile and express highways. Values in the partially abandoned urban areas were affected, and in turn mortgages and bank deposits backed by mortgages.

Two important industrial migrations are the migration of the Cotton Textile Industry from New England to the South, and the migration of the Boot and Shoe Industry from New England to the Atlantic and Middle Western States. Tables 10-20 present certain data regarding these industries. Table 9a shows value of product, payroll and mill balance cotton single hours in the Northeastern and Southeastern states in 1919 and 1933. Between 20 and 25% of the value, payrolls and mills balance was involved in the shift.

Table 10 shows shoe production in Massachusetts, once the main center of the shoe industry. In 1899 Massachusetts produced 47 per cent of all shoes produced in the United States. This percentage fell steadily to 35 per cent in 1919 and continued to fall thereafter until 20 per cent was reached in 1934.

Several causes have been adduced to explain these migrations. There are possible savings in transportation charges from locating nearer the sources of raw materials and/or markets. Rents and taxes may be lower in the new locations. Labor costs per unit of outputs may differ. Some data on regional differences in hourly wage rates are presented, to which the reader is referred. It should be noted that these hourly wage rates are not necessarily good measures of labor cost. Advantages of certain regions in this respect may be more apparent than real. Low efficiency may more than offset low hourly wage rates and result in labor cost even higher than in high wage regions.

TABLE 10

SHIFT OF THE COTTON TEXTILE INDUSTRY

FROM NEW ENGLAND TO THE SOUTH

CROP YEAR 19-	ACTIVE SPINDLE HOURS			PERCENT IN	
	United States a/	New England	Cotton South States	New England	Cotton States
	(Millions of spindle hours)				
1921-22	89,307	36,783	47,841	41.2	53.6
1922-23	101,931	41,271	55,776	40.5	54.7
1923-24	84,360	30,102	50,599	35.7	59.9
1924-25	91,055	31,201	55,912	34.3	61.4
1925-26	93,941	31,541	58,518	33.6	62.3
1926-27	106,605	33,052	65,865	32.2	64.1
1927-28	96,451	27,862	65,272	28.9	67.7
1928-29	99,604	28,253	68,361	28.3	68.6
1929-30	87,515	23,038	61,873	26.3	70.7
1930-31	75,263	18,757	54,482	24.9	72.4
1931-32	68,755	13,260	53,613	19.3	78.0
1932-33	85,265	17,231	66,366	20.2	77.8
1933-34	80,419	19,290	59,291	24.0	73.8
1934-35	72,526	16,245	54,643	22.4	75.4

a/ Includes states other than New England or Cotton States.

Source: Cotton Production and Distribution, Bureau of the Census.

TABLE 11

GEOGRAPHICAL SHIFTS

OF COTTON TEXTILE INCOME

	Value of Product (millions)		Per Cent of Total	
	1919	1933	1919	1933
Northeastern States a/	1,114	217	52.5	25.2
Southeastern States b/	882	583	41.6	67.7
Other States	125	61	5.9	7.1
Total United States	2,121	861	100.0	100.0

	Pay Roll (millions)		Per Cent of Total	
	1919	1933	1919	1933
Northeastern States a/	199	63	56.0	29.3
Southeastern States b/	134	138	37.8	63.8
Other States	22	15	6.2	6.9
Total United States	355	216	100.0	100.0

	Mill Balance c/ (millions)		Per Cent of Total	
	1919	1933	1919	1933
Northeastern States a/	248	44	49.5	26.1
Southeastern States b/	212	110	42.4	65.7
Other States	41	14	8.1	8.2
Total United States	501	168	100.0	100.0

Source: Compiled from Census of Manufacturers.

a/ Connecticut, Massachusetts, New Hampshire, New York, Pennsylvania, New Jersey, Rhode Island, Maine and Vermont excluded because data for 1919 not readily available.

b/ Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, Virginia.

c/ Value added by manufacture less wages.

TABLE 12

BOOT AND SHOE PRODUCTION IN MASSACHUSETTS

Year	Pairs Produced in Massachusetts	Index of Massachusetts Production, 1899-100	Per Cent of Massachusetts Production to National Production
1899	102,732,545	100.0	47.13%
1904	107,259,876	104.4	44.30
1909	118,009,926	114.9	41.40
1914	115,224,383	112.2	39.37
1919	116,992,912	113.9	35.32
1921	85,819,586	83.5	29.93
1923	89,517,331	87.1	25.50
1925	72,266,595	70.3	22.34
1926	72,851,015	70.9	22.45
1927	78,182,264	76.1	22.75
1928	83,310,625	81.1	24.19
1929	3,539,555	81.3	23.12
1930	9,510,470	67.7	22.85
1931	72,793,702	70.9	23.02
1932	73,998,038	72.0	23.62
1933	74,981,699	73.0	21.40
1934	71,614,123	69.7	20.05

Note: Figures given above for years 1899 to 1931, inclusive, were taken from Census of Manufacturers, while those for years 1923 to 1934 were taken from Bureau of the Census Reports. For the years 1923 to 1930, inclusive, the following note appeared on the Census report: "Statistics for Massachusetts...include a few plants located in other states, but such plants are not believed to be of sufficient importance to materially influence comparisons."

TABLE 19

COTTON TEXTILE MANUFACTURING INDUSTRY

Distribution of Employees by Hourly Earnings and Hours Per Week According to regions for two dates, before the code and during the code.

Average Hourly Earnings (Cents)	NORTH		SOUTH		Actual hours per Week	NORTH		SOUTH	
	July, 1933	August 1934	July, 1933	August. 1934		July, 1933	Aug. 1934	July, 1933	Aug.1934
	CUMULATIVE PERCENTAGES					CUMULATIVE PERCENTAGES			
Under 12.5	2.5	0.0	13.1	0.0	Under 20	6.2	7.6	7.6	11.8
" 22.5	33.2	0.4	72.7	0.5	" 24	7.8	10.5	10.0	19.4
" 27.5	58.3	1.2	86.2	6.1	" 28	10.1	20.2	11.8	33.8
" 30.0	70.2	1.9	89.5	6.7	" 32	11.8	37.5	14.3	65.8
" 32.5	77.3	3.4	93.8	49.0	" 36	14.2	55.3	19.5	78.3
" 35.0	82.9	29.4	96.3	62.1	" 40	19.5	60.9	22.1	81.7
" 40.0	89.7	53.4	98.3	78.0	" 44	25.5	97.9	27.9	98.6
" 45.0	93.9	69.9	99.1	87.6	" 48	34.8	100.0	38.7	100.0
" 50.0	97.3	79.5	99.4	94.1	" 52	53.2		46.2	
" 60.0	99.2	91.0	99.6	98.2	" 56	86.3		75.7	
					" 60	91.7		81.7	

Source: Bureau of Labor Statistics Cotton - Textile Reports - Parts I, II, III, February 1935.

Based on 14,630 employees, North and 23,231, South for July, 1933.
and 35,055 " " " 64,347, " " Aug., 1934.

9820

TABLE 14

BOOT AND SHOE INDUSTRY

Average Hourly Earnings by States, 1934, 1932, 1930

	Male			Female		
	1934[a]	1932[b]	1930[b]	1934[a]	1932[b]	1930[b]
Massachusetts	57.5¢	55.7	67.1¢	42.4¢	35.4¢	44.6¢
New Hampshire	58.7	43.9	50.5	45.0	29.1	34.9
Maine	49.7	44.7	51.1	38.9	29.9	36.0
New York	61.4	53.6	66.6	44.9	34.0	41.1
Ohio	54.2	48.5	59.0	39.3	29.2	36.1
Pennsylvania	47.4	40.8	51.2	35.9	24.8	33.1
Wisconsin	56.5	48.1	60.2	41.0	33.6	40.9
Missouri	52.2	47.3	54.8	37.7	27.3	32.1
Illinois	50.5	42.7	62.4	37.4	27.2	37.6

The spread between the high and low States was less in 1934 than in 1930:

	Male			Female		
	Low	High	Range	Low	High	Range
1934	47.4¢ hr	61.4¢hr	14.0¢	35.9¢hr	45.0¢hr.	9.1¢
1932	40.8	55.7	14.9	24.8	35.4	10.6
1930	50.5	67.1	16.6	32.1	44.6	12.5

There has also been a narrowing of the differential hourly earnings as between male and female:

	Lowest State for Males Exceeds Lowest for Females by	Highest State for Males Exceeds Highest For Females by
1934	11.5¢ hr	16.4¢ hr.
1932	16.0	20.3
1930	18.4	22.5

a. See Report of Survey Committee on the operation of the Code for the Boot and Shoe Industry, NRA Division of Review, July 16, 1935.

b. Bulletin No. 579, Bureau of Labor Statistics: Wages and Hours, Boot and Shoe Industry, 1932, p. 22.

TABLE 15

BOOT AND SHOE INDUSTRY

PERCENTAGE DISTRIBUTION OF THE NUMBER OF MALE EMPLOYES BY AVERAGE HOURLY EARNING WAGE GROUPS, SEGREGATED BY THE POPULATION CLASSIFICATIONS PRESCRIBED IN THE CODE, FOR EACH OF THE PRINCIPAL SHOE PRODUCING STATES, BASED ON DATA FURNISHED BY MEMBERS OF THE INDUSTRY FOR ONE WEEK IN OCTOBER, 1934

	Percentage of Employes Earning, Per Hour				
	Less than 40¢	40¢ to 50¢	50¢ to 60¢	60¢ to 70¢	Over 70¢
In Cities of over 250,000, including 18,587 Employees					
Massachusetts	19.37%	19.65%	15.29%	22.71%	22.98%
New York	18.20	18.04	14.90	11.98	36.88
Ohio	15.46	22.49	19.36	17.46	25.23
Pennsylvania	14.31	20.37	20.05	18.07	27.20
Wisconsin	9.97	23.27	19.11	19.38	28.27
Missouri	15.04	14.28	14.96	25.22	30.50
Illinois	20.13	16.19	9.15	46.48	8.05
In cities of 20,000 to 250,000, including 23,413 Employes					
Massachusetts	14.98%	20.34%	19.70%	18.82%	26.16%
New Hampshire	11.54	16.49	15.44	15.94	40.59
Maine	27.98	20.90	23.51	11.95	15.66
New York	15.32	18.96	23.32	18.71	23.69
Ohio	24.15	22.45	21.98	16.07	15.35
Pennsylvania	43.27	29.68	15.39	8.46	3.20
Wisconsin	12.93	26.68	19.75	20.09	20.55
Missouri	27.74	25.21	27.21	12.24	7.60
Illinois	36.16	20.79	23.05	13.51	6.49
In Cities and Towns of Less than 20,000, Including 43,840 Employes					
Massachusetts	24.87%	21.57%	19.77%	15.69%	18.10%
New Hampshire	41.13	19.18	17.17	11.00	11.52
Maine	37.07	24.04	16.55	11.14	11.20
New York	9.31	18.10	20.13	20.84	31.62
Ohio	35.93	26.02	20.15	12.11	5.79
Pennsylvania	48.34	24.96	14.48	7.12	5.10
Wisconsin	29.30	25.51	21.66	14.26	9.27
Missouri	31.38	26.95	20.98	13.40	7.29
Illinois	32.89	26.73	21.08	13.14	6.16

Source: Report of the Survey of the Committee on the operation of the Code for the Boot and Shoe Industry, NRA Division of Review, July 16, 1935. Compiled from Monthly Report to the Bureau of the Census.

TABLE 16

BOOT AND SHOE INDUSTRY

PERCENTAGE DISTRIBUTION OF THE NUMBER OF FEMALE EMPLOYES BY AVERAGE HOURLY EARNING WAGE GROUPS, SEGREGATED BY THE POPULATION CLASSIFICATIONS PRESCRIBED IN THE CODE, FOR EACH OF THE PRINCIPAL SHOE PRODUCING STATES. BASED ON DATA FURNISHED BY MEMBERS OF THE INDUSTRY FOR ONE WEEK IN OCTOBER, 1934

	Percentage of Employes Earning, Per Hour				
In Cities of over 250,000 including 13,573 Employes	Less than 35¢	35¢ to 40¢	40¢ to 45¢	45¢to 50¢	Over 50¢
Massachusetts	25.67%	22.28%	18.02%	13.27%	20.76%
New York	35.30	23.19	12.16	10.51	18.84
Ohio	28.14	21.99	19.06	11.99	18.82
Pennsylvania	28.99	20.03	13.29	10.90	26.79
Wisconsin	19.84	2165	19.76	17.67	21.08
Missouri	31.06	16.71	21.73	11.13	19.37
Illionis	35.94	13.30	39.51	5.42	5.83
In Cities of 20,000 to 250,000, including 18,928 Employes					
Massachusetts	26.26%	21.65%	17.94%	13.14%	21.01%
New Hampshire	18.14	13.11	12.57	12.46	43.72
Maine	40.51	15.82	13.29	5.06	25.32
New York	31.97	23.26	14.87	13.45	16.45
Ohio	40.52	25.48	16.84	10.02	7.14
Pennsylvania	58.44	25.23	7.79	5.38	3.16
Wisconsin	40.89	23.51	18.02	8.52	9.06
Missouri	67.21	21.28	6.70	2.48	2.33
Illinois	54.32	22.94	10.43	7.09	5.22
In Cities and Towns of Less than 20,000, including 34,150 Employes					
Massachusetts	35.61%	21.69%	17.02%	9.81%	15.87%
New Hampshire	48.30	19.47	13.00	8.60	10.63
Maine	46.52	21.28	11.05	8.76	12.39
New York	18.14	13.64	15.85	16.53	35.84
Ohio	64.64	18.69	10.42	3.03	3.22
Pennsylvania	68.90	15.52	7.91	4.21	3.46
Wisconsin	51.81	18.98	13.03	8.43	7.75
Missouri	58.82	19.74	12.42	5.32	3.70
Illinois	53.62	20.15	13.27	6.89	6.07

Source: Same as Table 15.

BOOT AND SHOE INDUSTRY

CUMULATIVE PERCENTAGE OF THE NUMBER OF MALE EMPLOYES ACCORDING TO HOURLY EARNINGS AND POPULATION GROUPS PRESCRIBED BY THE CODE FOR MARCH, 1934, AND MARCH, 1935

Earnings Per Hour	March, 1934 Total	In Cities over 250,000	In Cities of 20,000 to 250,000	In Cities and Towns Under 20,000	Cities and Towns in Southern States	March, 1935 Total	In Cities over 250,000	In Cities of 20,000 to 250,000	In Cities and Towns Under 20,000	Cities and Towns in Southern States
Less than 35¢	3.35%	1.44%	2.12%	4.60%	5.84%	2.07%	1.44%	1.66%	2.44%	3.50%
36¼¢	13.99	2.24	5.32	21.50	36.45	11.26	1.87	3.10	18.46	33.65
37½¢	19.21	4.20	17.39	24.35	41.39	15.63	2.86	13.90	20.87	37.98
40¢	27.00	17.50	22.55	31.33	47.53	22.65	15.16	18.86	26.47	43.66
45¢	37.39	26.21	31.60	42.86	61.63	33.11	23.85	28.70	37.94	56.68
50¢	43.02	35.31	42.29	54.05	72.89	43.51	33.04	38.74	49.00	63.65
60¢	66.11	51.79	61.98	72.22	88.52	62.58	49.98	57.74	69.33	86.60
70¢	81.52	71.47	78.57	86.08	94.92	78.70	68.56	75.33	84.22	94.26
80¢	90.57	83.65	88.62	93.85	97.98	83.69	81.38	86.79	92.56	97.97
90¢	96.05	92.56	95.17	97.69	99.40	94.93	91.12	94.14	96.88	99.30
90¢ and over	3.95	7.44	4.83	2.31	.60	5.07	8.88	5.86	3.12	.70
TOTAL,	100.00%	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number of Employees	101,061	20,980	26,719	48,377	5,125	110,061	25,983	28,915	49,848	5,315

NOTE: Percentages underlined indicate the percentage of the number of employes receiving less than or approximately the minimum wage.

Compiled from reports of Bureau of Census summarizing wage data submitted by members of the industry for one week in each month.

Source: Same as Table 15.

TABLE 18

BOOT AND SHOE INDUSTRY

CUMULATIVE PERCENTAGE OF THE NUMBER OF FEMALE EMPLOYES ACCORDING TO HOURLY EARNINGS AND POPULATION GROUPS PRESCRIBED BY THE CODE FOR MARCH, 1934, AND MARCH, 1935

Earnings Per Hour	March, 1934 Total	In Cities over 250,000	In Cities of 20,000 to 250,000	In Cities and Towns Under 20,000	Cities and Towns in Southern States	March, 1935 Total	In Cities over 250,000	In Cities of 20,000 to 250,000	In Cities and Towns Under 20,000	Cities and Towns in Southern States
Less than 30¢	5.85%	2.50%	3.96%	7.73%	10.50%	3.69%	2.05%	2.72%	4.71%	6.72%
31¼¢	24.33	3.63	8.38	38.40	52.35	19.03	2.87	5.33	32.06	43.74
32½¢	34.50	5.60	32.11	44.26	58.34	28.52	5.54	26.69	37.71	49.93
35¢	47.90	31.96	42.13	54.98	69.43	41.37	28.46	36.55	47.95	62.10
36¼¢	54.00	37.41	48.65	61.11	75.27	47.77	34.13	42.99	54.57	69.23
37½¢	58.02	41.35	53.27	64.76	79.66	52.03	38.13	47.42	58.88	73.17
40¢	66.63	52.00	62.05	72.75	85.96	60.83	48.18	56.16	67.24	81.24
45¢	79.63	72.34	75.33	83.50	93.59	75.70	68.26	71.32	80.18	90.45
50¢	88.04	84.07	84.99	90.33	97.16	85.65	81.43	81.86	88.80	95.81
60¢	96.12	94.94	94.50	97.14	99.56	94.90	93.74	92.82	96.25	99.24
70¢	98.89	98.40	98.29	99.31	99.89	98.41	98.06	97.44	99.03	99.70
70¢ and over	1.11	1.60	1.71	.69	.11	1.59	1.94	2.56	.97	.30
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number of Employees	82,957	15,160	23,283	40,229	4,285	89,349	18,597	25,340	41,622	4,290

NOTE: Percentages underlined indicate the percentage of employes receiving less than or approximately the minimum wage.

Compiled from reports of Bureau of Census summarizing wage data submitted by members of the industry for one week in each month. Same as Table 15.

TABLE 19

BOOT AND SHOE INDUSTRY

PERCENTAGE DISTRIBUTION OF EMPLOYMENT BY HOURS WORKED PER WEEK FOR YEAR 1934.
(SHOWING THE PROPORTION OF WORKERS EMPLOYED FOR VARIOUS TIME PERIODS DURING THE YEAR. FOR EXAMPLE, 9.3 PER CENT OF EMPLOYMENT OF MALES DURING THE YEAR WAS FOR A WEEK OF LESS THAN 20 HOURS.)

Hours Worked Per Week	Males					Females				
	Total Male Employes	In Cities over 250,000	In Cities of 20,000 to 250,000	In Cities and Towns Under 20,000	Cities and Towns in Southern States	Total Female Employes	In Cities over 250,000	In Cities of 20,000 to 250,000	In Cities and Towns Under 20,000	Cities and Towns in Southern States
20 and under	9.32%	11.05%	10.24%	7.81%	10.73%	11.32%	11.58%	12.18%	10.38%	14.32%
Over 20 to 25	5.87	5.67	6.54	5.52	6.63	6.55	6.06	6.78	6.48	7.83
Over 25 to 30	6.72	6.54	7.81	6.08	7.74	7.87	8.05	8.00	7.70	8.01
Over 30 to 32.5	8.28	7.11	8.22	9.14	5.85	7.77	5.88	7.87	8.55	7.28
Over 32.5 to 35	5.31	4.72	5.60	5.17	7.67	5.60	4.67	5.64	5.81	6.91
Over 35 to 37.5	7.09	6.07	6.55	7.59	9.87	7.74	6.49	7.72	8.26	7.74
Over 37.5 to 40	40.14	40.65	40.15	40.21	37.13	36.61	38.65	37.09	35.43	37.18
Over 40 to 42.5	4.18	4.90	2.77	4.70	3.53	4.08	5.17	2.74	4.56	2.83
Over 42.5 to 45	10.97	11.14	9.73	11.81	8.58	11.52	12.29	11.13	11.90	7.14
Over 45 to 47.5	.69	.84	.66	.63	.81	.59	.80	.47	.60	.35
Over 47.5 to 50	.53	.62	.64	.43	.39	.24	.28	.28	.21	.20
Over 50 to 52.5	.16	.13	.19	.15	.28	.05	.05	.05	.05	.04
Over 52.5 to 55	.16	.14	.18	.15	.23	.02	.01	.02	.02	.17
Over 55	.58	.42	.67	.61	.56	.04	.02	.03	.05	--
TOTAL,	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Average Number of Employes	101,787	22,728	26,620	47,388	5,050	80,965	15,739	22,738	38,424	4,065

NOTE: Compiled from reports of Bureau of Census summarizing hours data reported by members of the industry for one week in each month. Same as Table 15.

TABLE 20

BOOT AND SHOE INDUSTRY

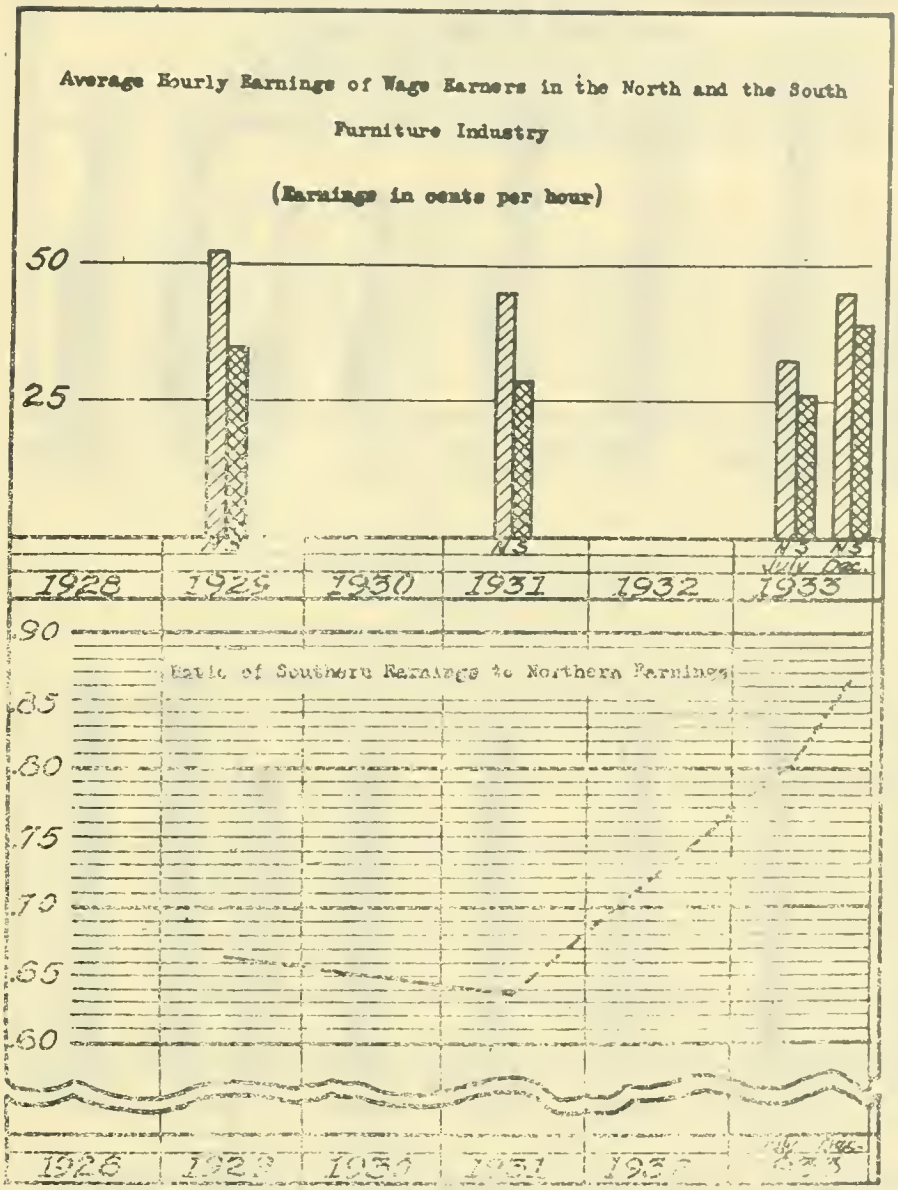
CUMULATIVE PERCENTAGE DISTRIBUTION OF EMPLOYMENT BY HOURS WORKED PER WEEK FOR YEAR 1934

(SHOWING THE PROPORTION OF WORKERS EMPLOYED FOR VARIOUS TIME PERIODS DURING THE YEAR. FOR EXAMPLE, 9.3 PER CENT OF EMPLOYMENT OF MALES DURING THE YEAR WAS FOR A WEEK OF LESS THAN 20 HOURS.)

Hours Worked Per Week	Males					Females				
	Total Male Employes	In Cities of over 250,000 Pop.	In Cities of 20,000 to 250,000	In Cities and Towns Under 20,000	Cities and Towns in Southern States	Total Female Employes	In Cities of over 250,000 Pop.	In Cities of 20,000 to 250,000	In Cities and Towns Under 20,000	Cities and Towns in Southern States
20 and under	9.32%	11.05%	10.24%	7.81%	10.73%	11.32%	11.58%	12.18%	10.38%	14.32%
25 and under	15.19	16.72	16.78	13.33	17.36	17.87	17.64	18.96	16.86	22.15
30 and under	21.91	23.26	24.59	19.41	25.10	25.74	25.69	26.96	24.56	30.16
32.5 and under	30.19	30.37	32.81	28.55	30.95	33.51	31.57	34.83	33.11	37.44
35 and under	35.50	35.09	38.41	33.72	38.62	39.11	36.24	40.47	38.92	44.35
37.5 and under	42.59	41.16	44.96	41.31	48.49	46.85	42.73	48.19	47.18	52.09
40 and under	82.73	81.81	85.11	81.52	85.62	83.46	81.38	85.28	82.61	89.27
42.5 and under	86.91	86.71	87.88	86.22	89.15	87.54	86.55	88.02	87.17	92.10
45 and under	97.88	97.85	97.66	98.03	97.73	99.06	98.84	99.15	99.07	99.24
47.5 and under	98.57	98.69	98.32	98.66	98.54	99.65	99.64	99.62	99.67	99.59
50 and under	99.10	99.31	98.96	98.09	99.93	99.89	99.92	99.90	99.88	99.79
52.5 and under	99.26	99.44	99.15	99.24	99.21	99.94	99.97	99.95	99.93	99.83
55 and under	99.42	99.58	99.33	99.39	99.44	99.96	99.98	99.97	99.95	100.00
Over 55	.58	.42	.67	.61	.56	.04	.02	.03	.05	---
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Average Number of Employes	101,787	22,728	26,620	47,388	5,050	80,965	15,739	22,738	38,424	4,065

NOTE: See note to Table No. 20. Same as Table 15.

CHART II

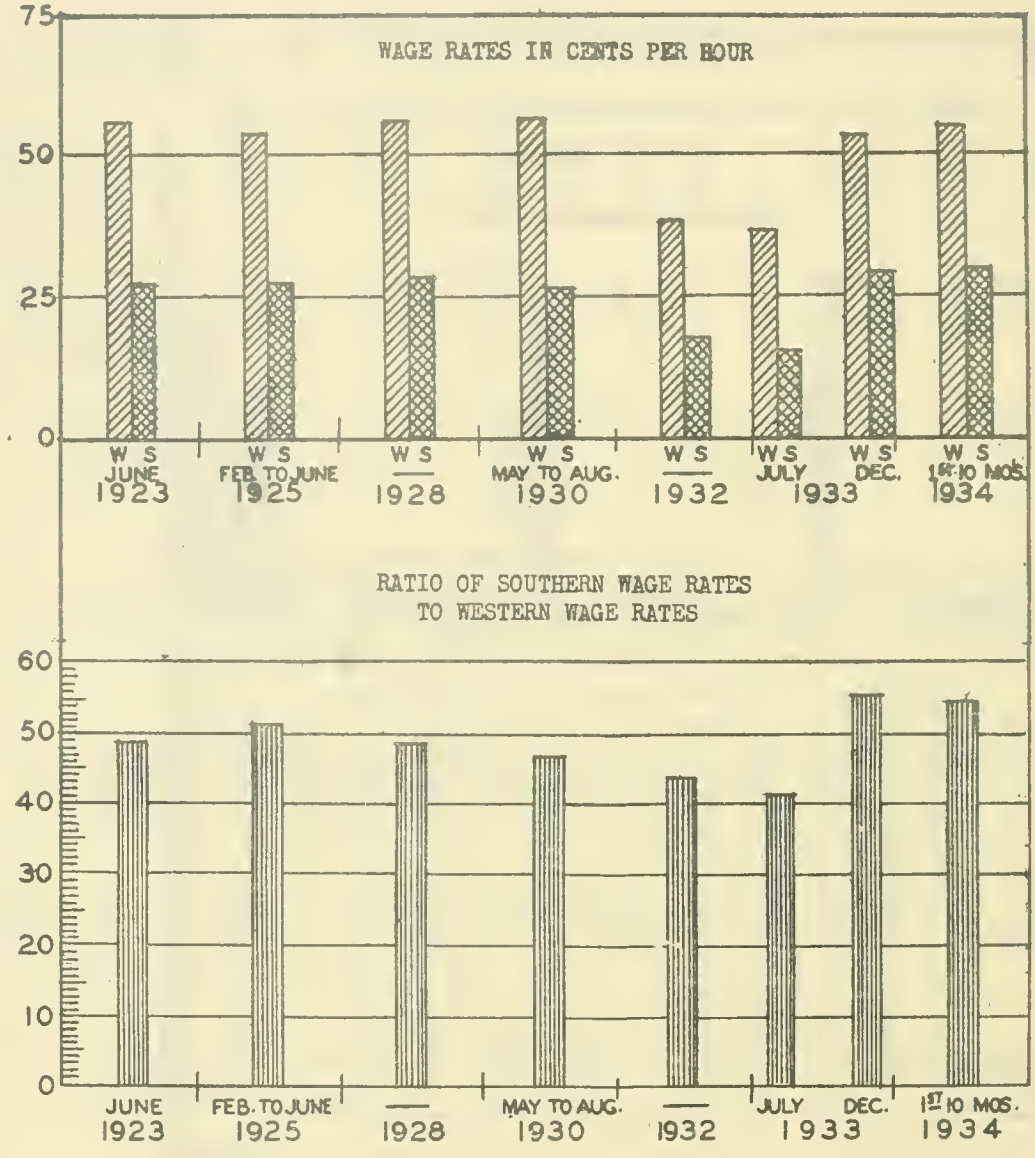


Note: North. Illinois, Indiana, Michigan, New Jersey, [illegible], Ohio, Pennsylvania and Wisconsin.
South: Maryland, Georgia, Kentucky, North Carolina, Tennessee and Virginia.
The North - South classification as given in the code for the Furniture Industry differs slightly from the above classification since there Maryland is in the Northern classification.

Sources: 1929 - 1931 data: B. L. S. Wages and Hours Study #671
1933 data: Special tabulation by B. L. S. NRA-683

CHART 12

AVERAGE HOURLY WAGE RATES IN THE LUMBER INDUSTRY (SAWMILLS) IN THE WEST AND SOUTH, 1923 - 1934



Source: Data for pre-code years compiled from B.L.S. state averages; for post-code dates from Lumber Code Authority data for the Southern Pine and West Coast Divisions. See attached table.

Division of Research and Planning, NRA

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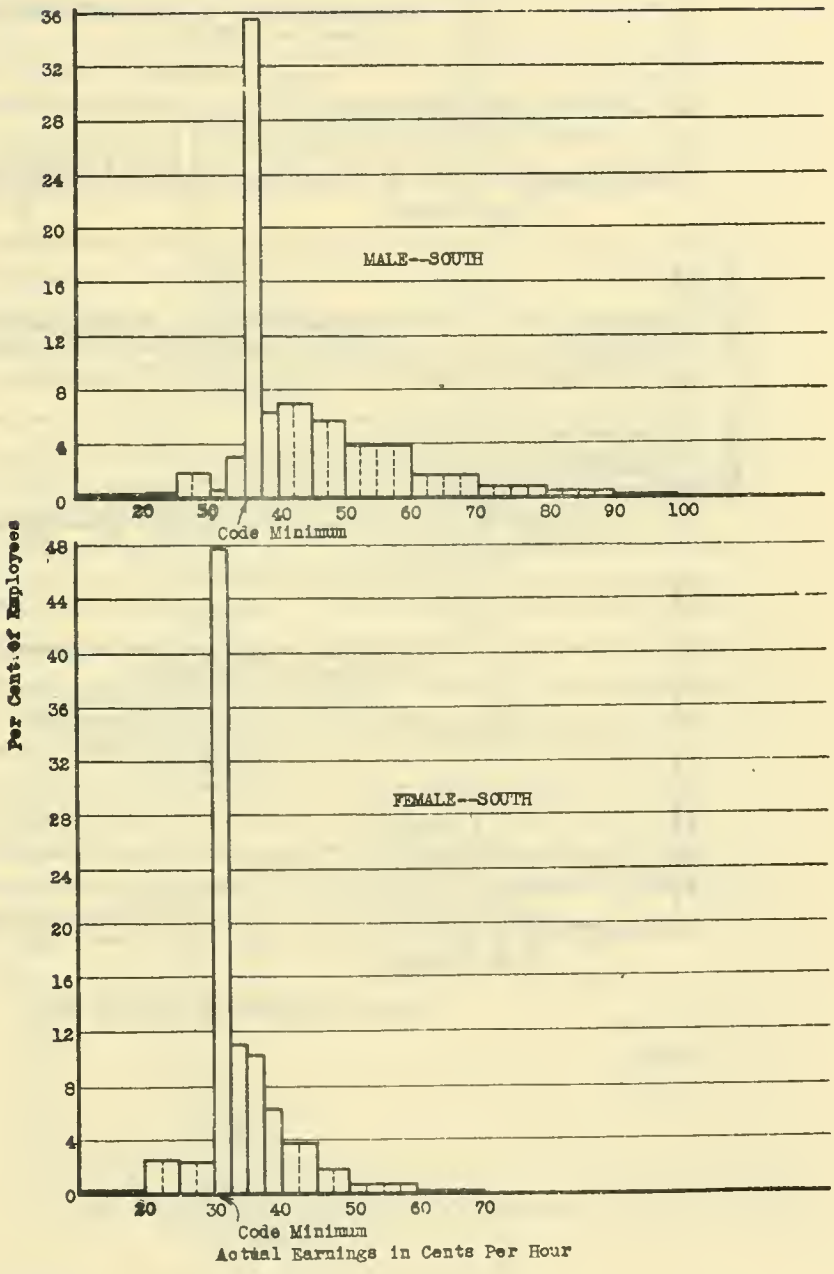
CHART 13

ACTUAL HOURLY EARNINGS--BOOT AND SHOE INDUSTRY

South--Male and Female Employees. Percentage Distribution by Hourly Earnings.

The height of each column shows the percentage of employees whose earnings fall in the interval represented by the base of the column. Percentages are based on reports to the Bureau of Census covering 5125 male and 4285 female employees for a week in March, 1934.



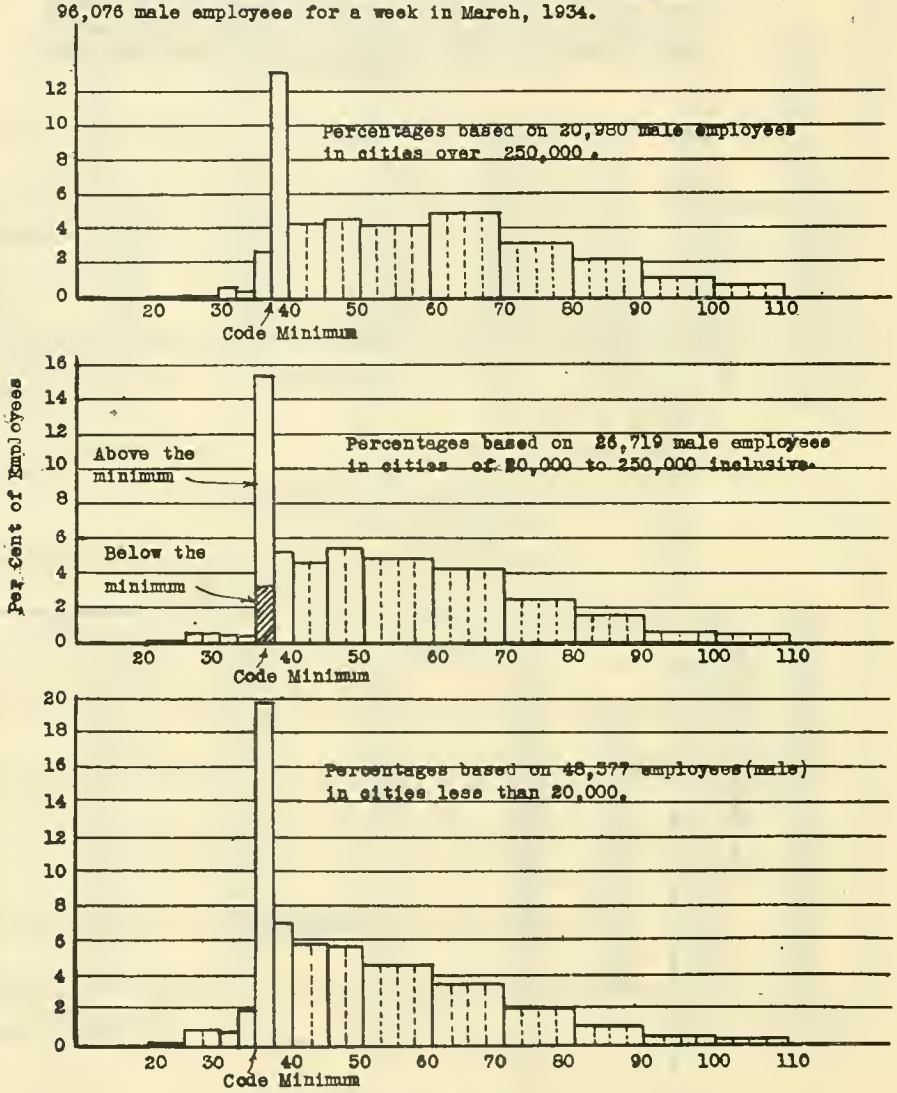
9820

CHART 14

ACTUAL HOURLY EARNINGS--BOOT AND SHOE INDUSTRY

North--Male Employees. Percentage Distribution by Hourly Earnings in Cities of Large, Medium and Small Sizes.

The height of each column shows the percentage of employees whose earnings fall in the interval represented by the base of the column. Percentages are based on reports to the Bureau of Census covering 96,076 male employees for a week in March, 1934.



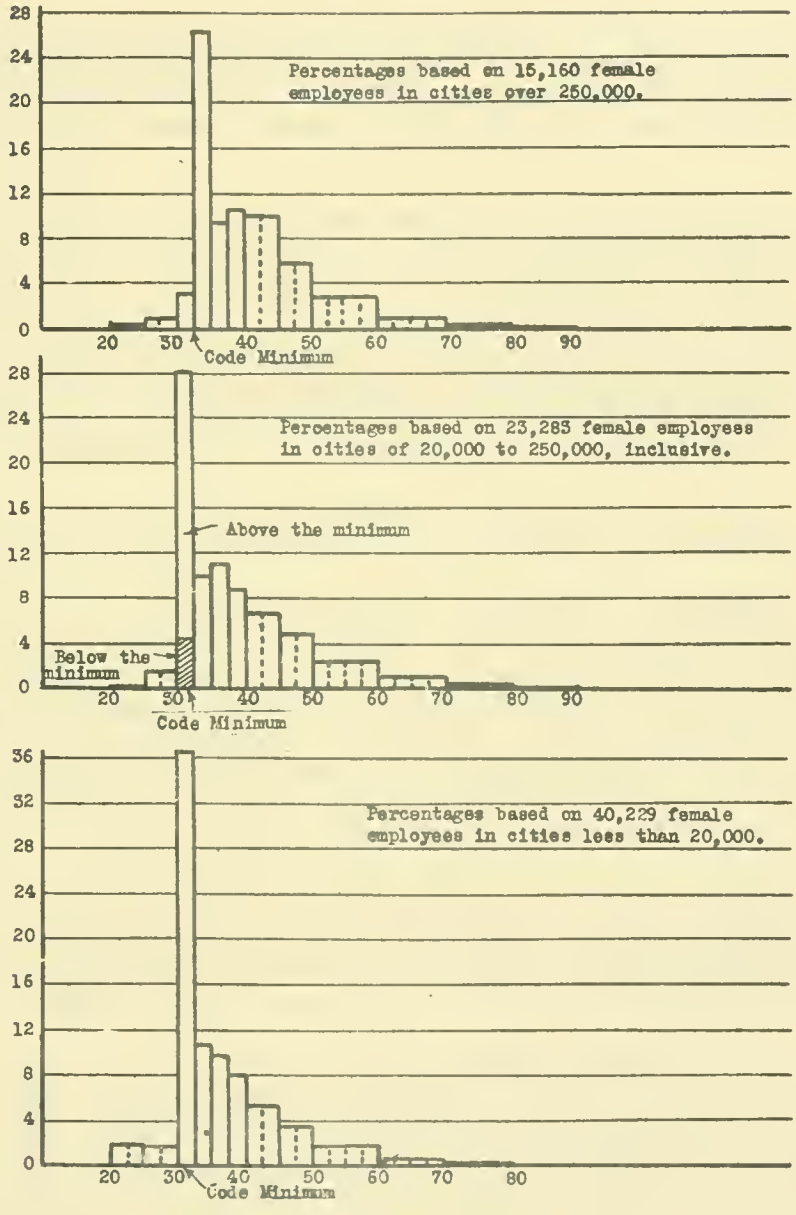
9820

CHART 15

ACTUAL HOURLY EARNINGS—BOOT AND SHOE INDUSTRY

North—Female Employees. Percentage Distributions by Hourly Earnings in Cities of Large, Medium and Small Sizes.

The height of each column shows the percentage of employees whose earnings fall in the interval represented by the base of the column. Percentages are based on reports to the Bureau of Census covering 78,672 female employees for a week in March, 1934.



C. THE PROBLEM OF OUT- OF- BALANCE PRICES

Whatever the explanation, it is a fact that some prices dropped precipitously during the depression, while others receded but little from the 1929 levels. Chart 16 shows indexes for ten groups of commodities, flexible, intermediate and rigid. The basis of classification is the number of month-to-month changes out of 94 opportunities for change during January, 1936, through November, 1933.

Group I includes those commodities which remained unchanged, Group II, those which changed I to 4 times, and so on, to Group X, which includes those commodities changing price at least once a month. (Source: Industrial Prices and their Relative Inflexibility, Senate Document No. 13, 74th Congress)

One qualification is necessary. Particularly in the"rigid" groups the basic data are sometimes nominal or price list quotations, and the actual net price to purchasers after discounts, terms and allowances, may be fairly flexible. Nevertheless, in its main outlines, the picture is substantially correct.

Chart 17 shows per cent deviations of price indexes principal of commodity, groups from the all-commodity index. As the statistician would say, each has been "deflated" by the wholesale price index. Metals and metal products, chemicals and drugs, and building materials, dropped less than the average during the depression, and accordingly their "deflated" indexes measure above 100. Textiles and their products, farm prices, and food products fell much faster and farther than the average, and so their "deflated" indexes go well below 100.

Chart 18 shows the ratio of flexible prices to rigid prices. The Federal Reserve Board Index of Production is included for comparison.

Many economists have said that lack of balance, maladjustment between groups of prices, was a contributing, or at least an aggravating cause of the depression. Some assert that prices of flexible - priced goods (chiefly farm products) must be brought up into line with other prices if goods were to interchange in volume. Others claim that price reductions, particularly for manufactured products, would bring these goods within reach of an ever-widening circle of consumers. An expansion of volume would follow, which would increase work opportunities.

Still others say that price cutting starts a vicious circle of wage cutting, lessened purchasing power, lessened volume decreased employment, and finally around to more price cutting. Demoralized prices, they say, sap the power of an industry to carry a reemployment load.

What constitutes a healthy, in-balance price structure? When are prices in adjustment? Where should individual prices go in order to unblock the flow of trade? If pre-depression relationships represent adjustment, then the last thirty months have witnessed a restoration of balance. Deflated price indexes for important groups, notably metals and metal products, and farm products, have returned towards the zero line. Raw materials, after getting 20% "out of line" with respect to the all-commodity index, are now only 3 or 4% "out of line."

Some would deny that the above constitutes a good measure of price adjustment. Many changes in costs, quality, demand and supply have taken place in the last six years which may call for new price relationships. The relation of price to costs may be a better measure of adjustment than the relation to an average of all prices.

A classification of code provisions dealing with prices will be found in "Content of N.R.A. Administrative Legislation, Part C."

The building industry has often been singled out as one in which prices are allegedly out of line, to such an extent, so it is said, as to be a serious bar to recovery. Chart 21 shows some statistical series related to building, and charts 22-43 the course of prices of important building materials from 1919 to 1934.

TABLE 21.

PRICES OF VARIOUS PRODUCTS AND SERVICES IN 1929, AND IN FEB. 1933 a/

SOME RIGID AND SEMI-RIGID PRICES	1929	Feb. 1933	% Change
Freight rates		some decreases	
Passenger rates		some decreases	
Postal rates, first class	2¢	3¢	+ 50%
Postal rates, other		many increases	
Domestic electricity (1)	6.5¢	5.6	- 14
" " (2)	83.3	80.2	- 4
Telephone rates		some decreases	
Manufactured gas per 1000	$1.21	1.15	- 5
Motor Vehicles a/	106.7	90.9	- 15
Agricultural Implements a/	98.7	83.1	- 16
Cement	91.8	81.8	- 11
Structural Steel	98.1	81.7	- 17
Nickel	35¢	35¢	0
Aluminum, per lb.	23.90¢	22.90¢	- 4
Antracite coal	90.1	88.7	- 2
Bituminous Coal	91.3	79.4	- 13
Coke	84.6	75.2	- 11
PRICES OF INTERMEDIATE FLEXIBILITY			
Furniture	96.0	71.9	- 25
House Furnishings	97.5	72.9	- 25
Building materials, n.e.s.	106.9	69.9	- 35
Brick and Tile	91.1	75.1	- 18
Paper and Pulp	87.9	72.1	- 18
Drugs and pharmaceuticals	71.5	54.8	- 23
Boots and Shoes	106.3	83.3	- 22
Iron and Steel	94.9	77.3	- 29
Chemicals	99.1	79.0	- 20
SOME FLEXIBLE PRICES			
Grains	97.4	32.7	- 64
Live Stock and Poultry	106.1	40.1	- 62
Other Farm Products	106.6	44.2	- 59
Meats	109.1	50.2	- 54
Fruits and Vegetables	97.8	52.4	- 46
Cereal Products	88.0	60.4	- 41
Hides and Skins	112.7	40.9	- 64
Leather	113.2	55.3	- 51
Cotton Goods	99.4	49.1	- 51
Silk and Rayon	80.1	25.6	- 68
Woolen and Worsted	97.8	53.2	- 45
Knit Goods	88.5	48.3	- 45
Clothing	90.0	61.2	- 32
Petroleum products	71.3	34.3	- 52
Non-ferrous metals	106.1	46.2	- 57
Lumber	94.5	56.4	- 40
Paint Materials	91.3	59.4	- 35
Plumbing and Heating	95.0	59.4	- 38
Mixed fertilizers	97.2	62.4	- 36
Fertilizer Materials	92.1	61.5	- 33
Automobile tires	55.6	42.6	- 23
Crude Rubber	42.3	6.1	- 86

Sources: Bureau of Labor Statistics Price Indexes; Standard Statistics Base Book. (1) Read from chart published in "Business Week" for Sept. 29, 1934. (2) Monthly Labor Review, Aug. 1934, p. 510.

a/Accurate measurement of price changes of articles which change markedly in quality is difficult if not impossible. Adjustment of these figures for quality variations would show larger price decreases.

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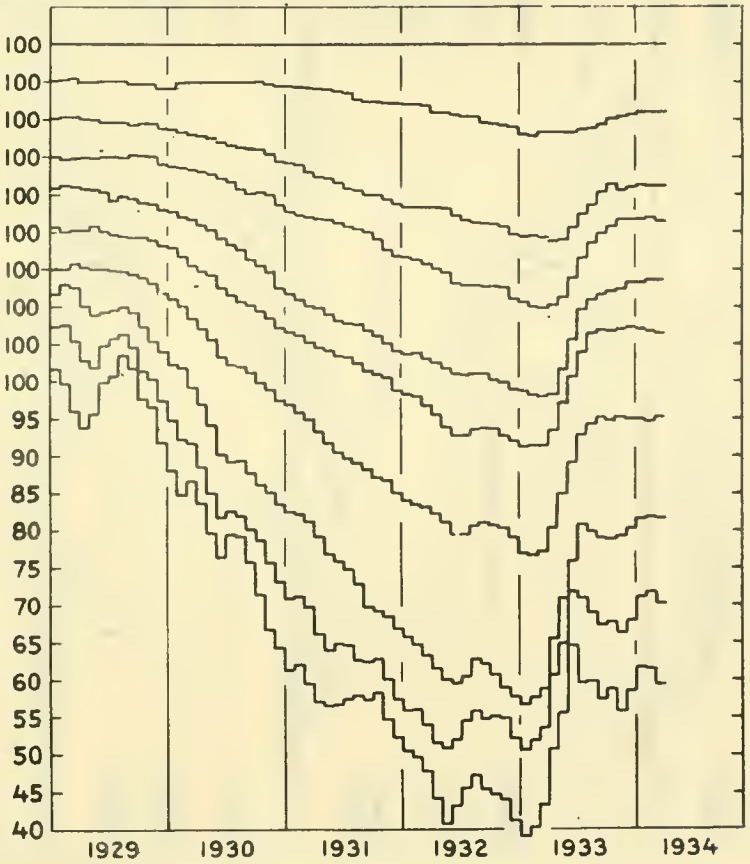
RELATION BETWEEN FREQUENCY OF PRICE CHANGE AND MAGNITUDE OF PRICE CHANGE DURING DEPRESSION

PRICE INDEXES FOR 750 ITEMS INCLUDED IN B.L.S. WHOLESALE PRICE INDEX GROUPED ACCORDING TO FREQUENCY OF PRICE CHANGE (1926-1933)(1)

INDEX	NO. OF ITEMS	FREQUENCY OF PRICE CHANGE Δ
I	14	0
II	77	1-4
III	76	5-8
IV	82	9-13
V	96	14-21
VI	88	22-35
VII	86	36-60
VIII	85	61-87
IX	83	88-93
X	63	94
	750	



(1) ARITHMETIC AVERAGE OF MONTHLY PRICE RELATIVES BASED ON AVERAGE OF MONTHLY PRICES IN 1926 AS 100

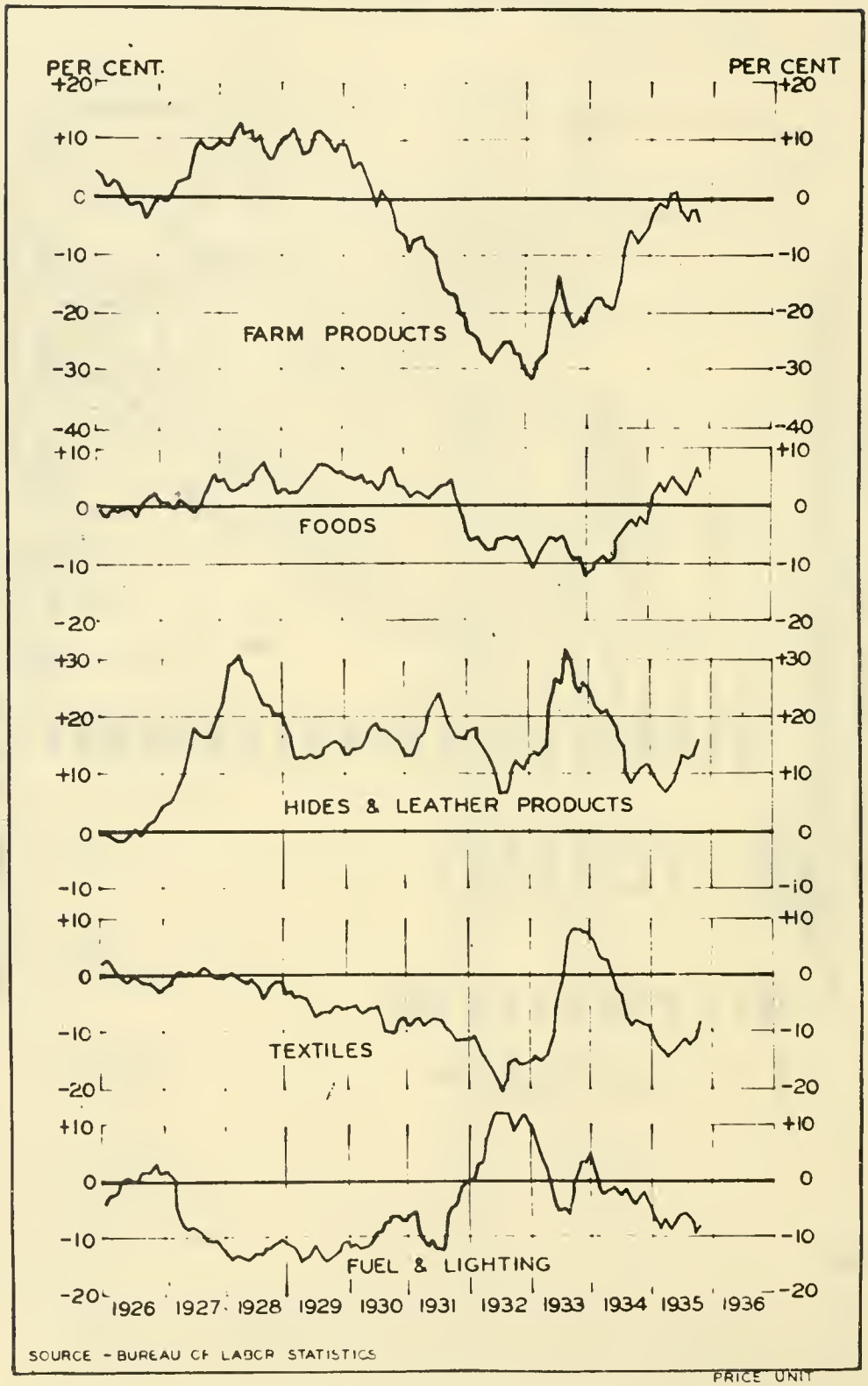
Δ NUMBER OF CHANGES IN 94 OPPORTUNITIES FOR CHANGE

CHART 16

CHART 17

COMPARISON OF COMMODITY GROUP AVERAGE PRICES WITH GENERAL WHOLESALE PRICE LEVEL.

(B. L. S. GROUP INDEX COMPARED TO ALL COMMODITIES INDEX)



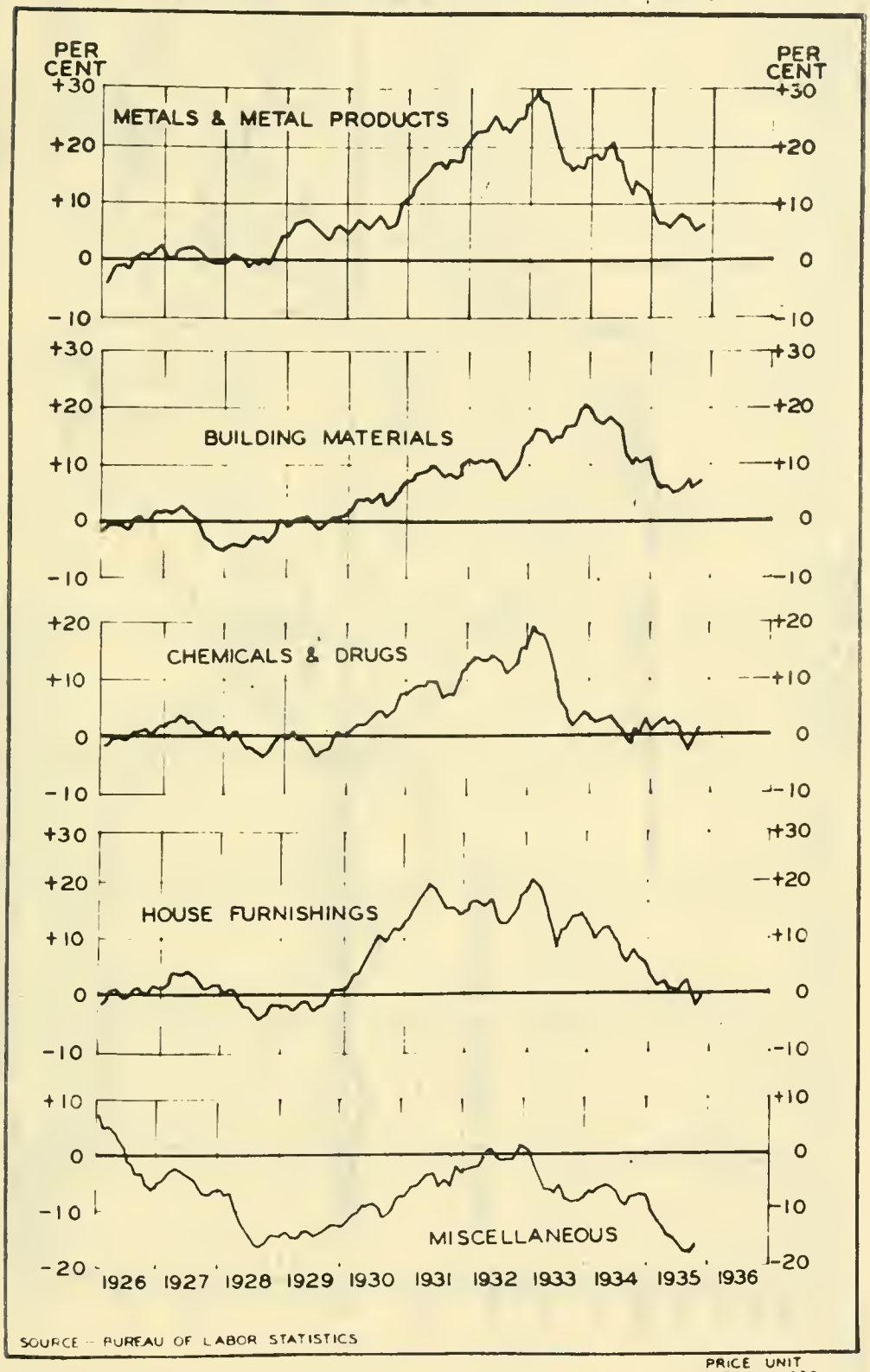
SOURCE - BUREAU OF LABOR STATISTICS

PRICE UNIT
N. R. A - 635

CHART 17 (CONT.)

COMPARISON OF COMMODITY GROUP AVERAGE PRICES WITH GENERAL WHOLESALE PRICE LEVEL.

(B.L.S. GROUP INDEX COMPARED TO ALL COMMODITIES INDEX)



SOURCE -- BUREAU OF LABOR STATISTICS

PRICE UNIT
N R A - 636

RATIOS OF FLEXIBLE TO RIGID PRICES AND INDEX OF INDUSTRIAL PRODUCTION 1926-1935

0286

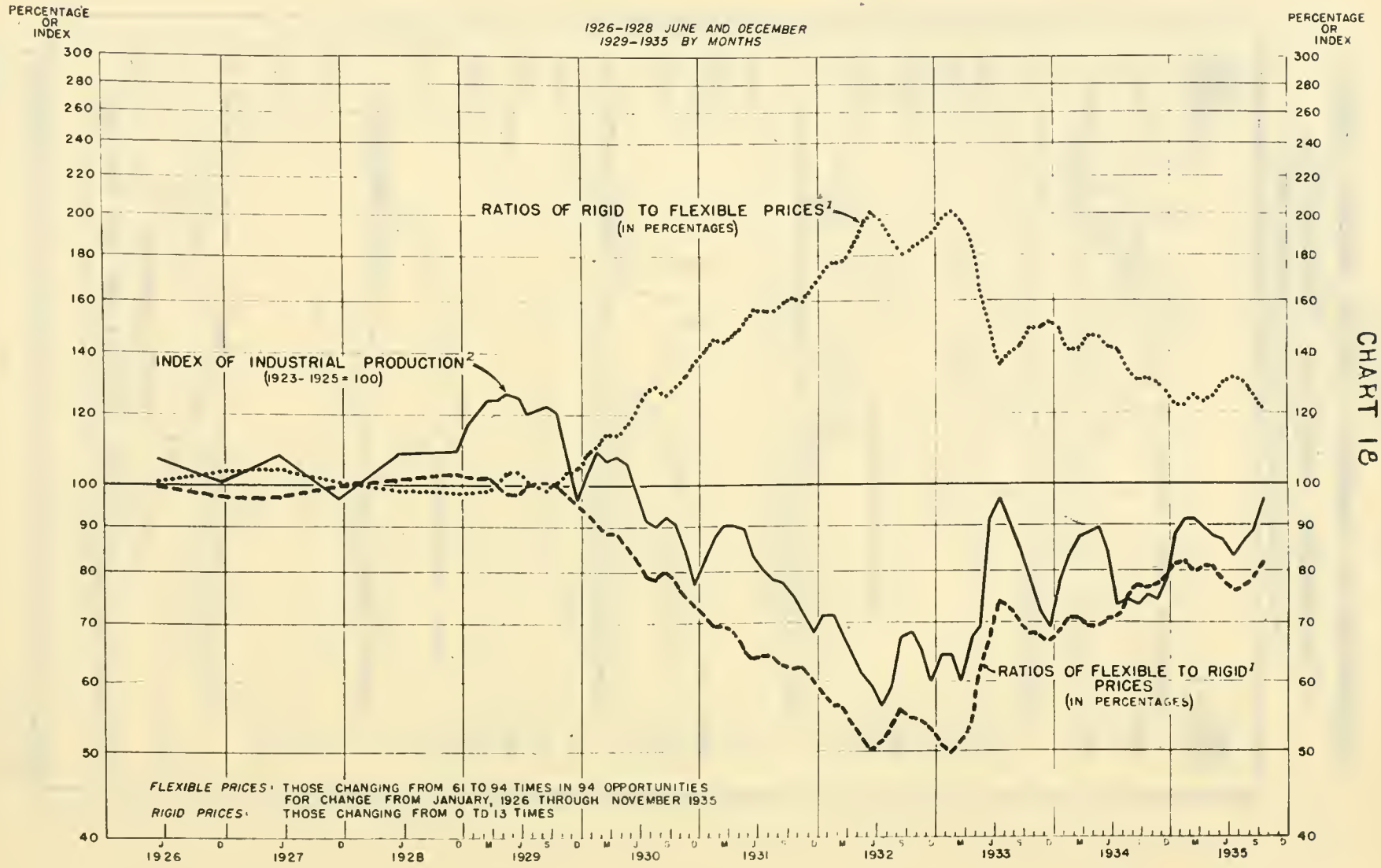


CHART 18

54

SOURCES: [1] FOR BASIC DATA INDUSTRIAL PRICES AND THEIR RELATIVE INFLEXIBLITY SENATE DOCUMENT NO 13
[2] FEDERAL RESERVE BOARD SERIES WITHOUT ADJUSTMENT

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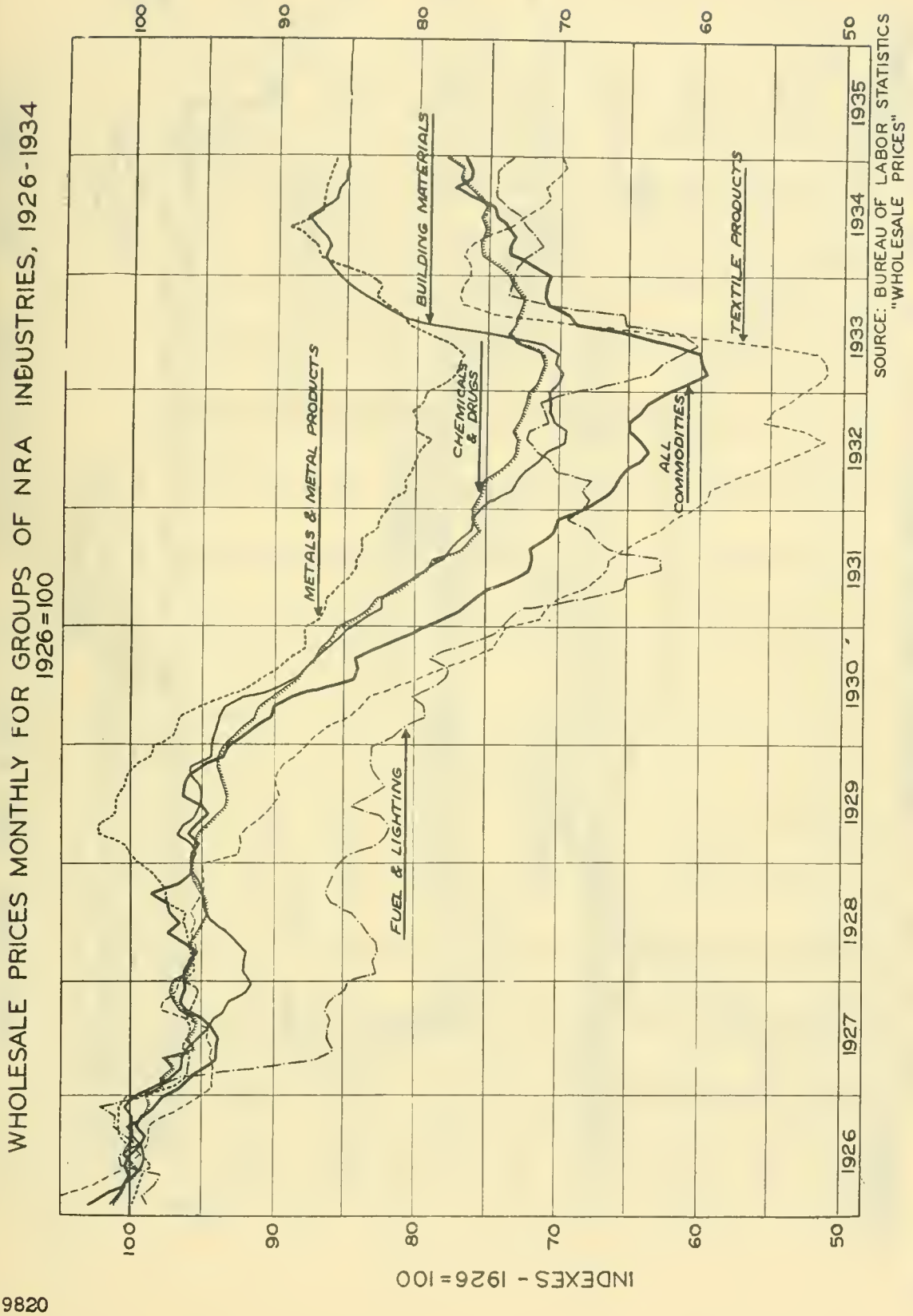
STATISTICS SECTION
NO. 452

CHART 19

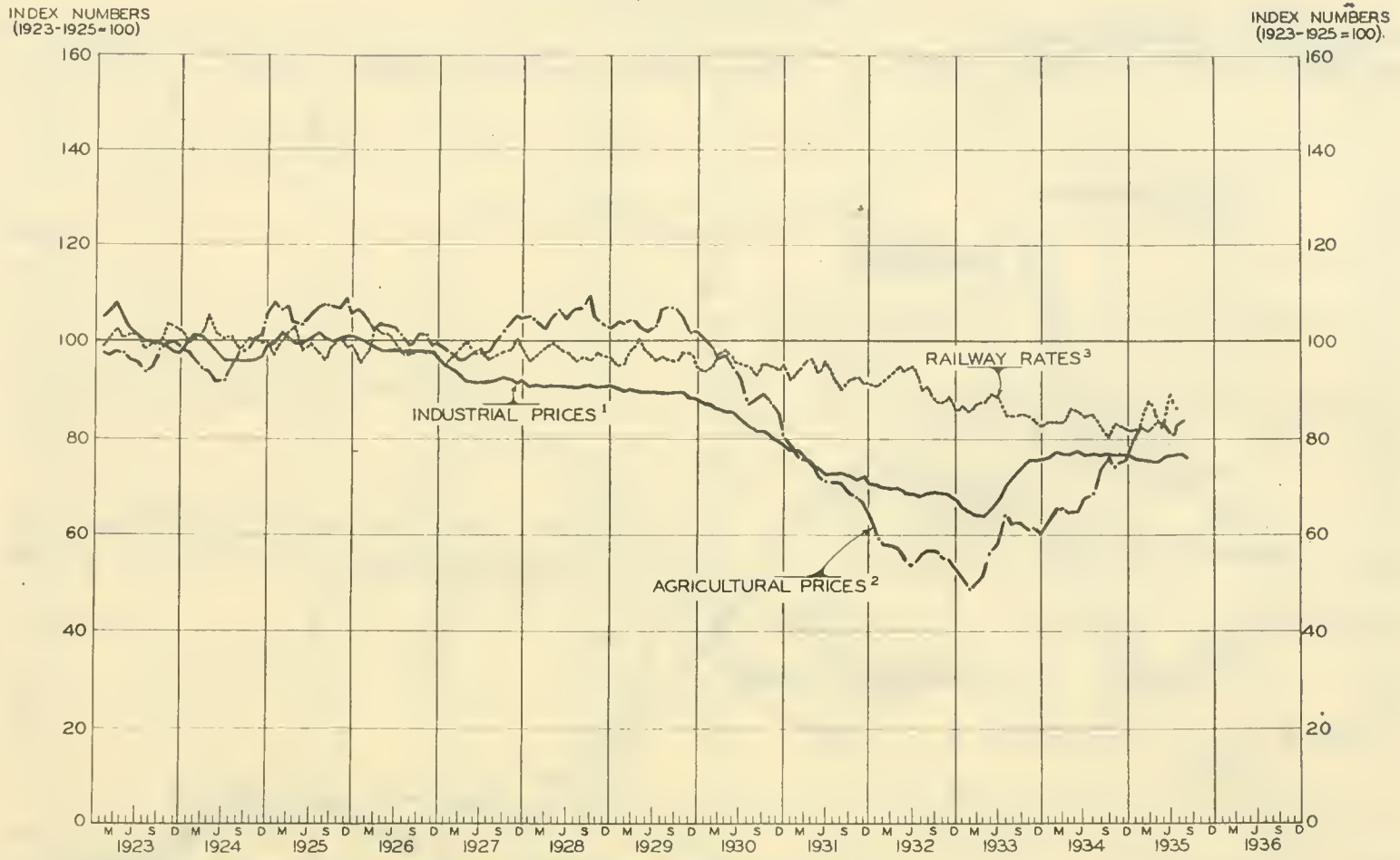


9820

CHART 20

9820

INDUSTRIAL PRICES, AGRICULTURAL PRICES, AND RAILWAY RATES, JANUARY, 1923 TO DATE



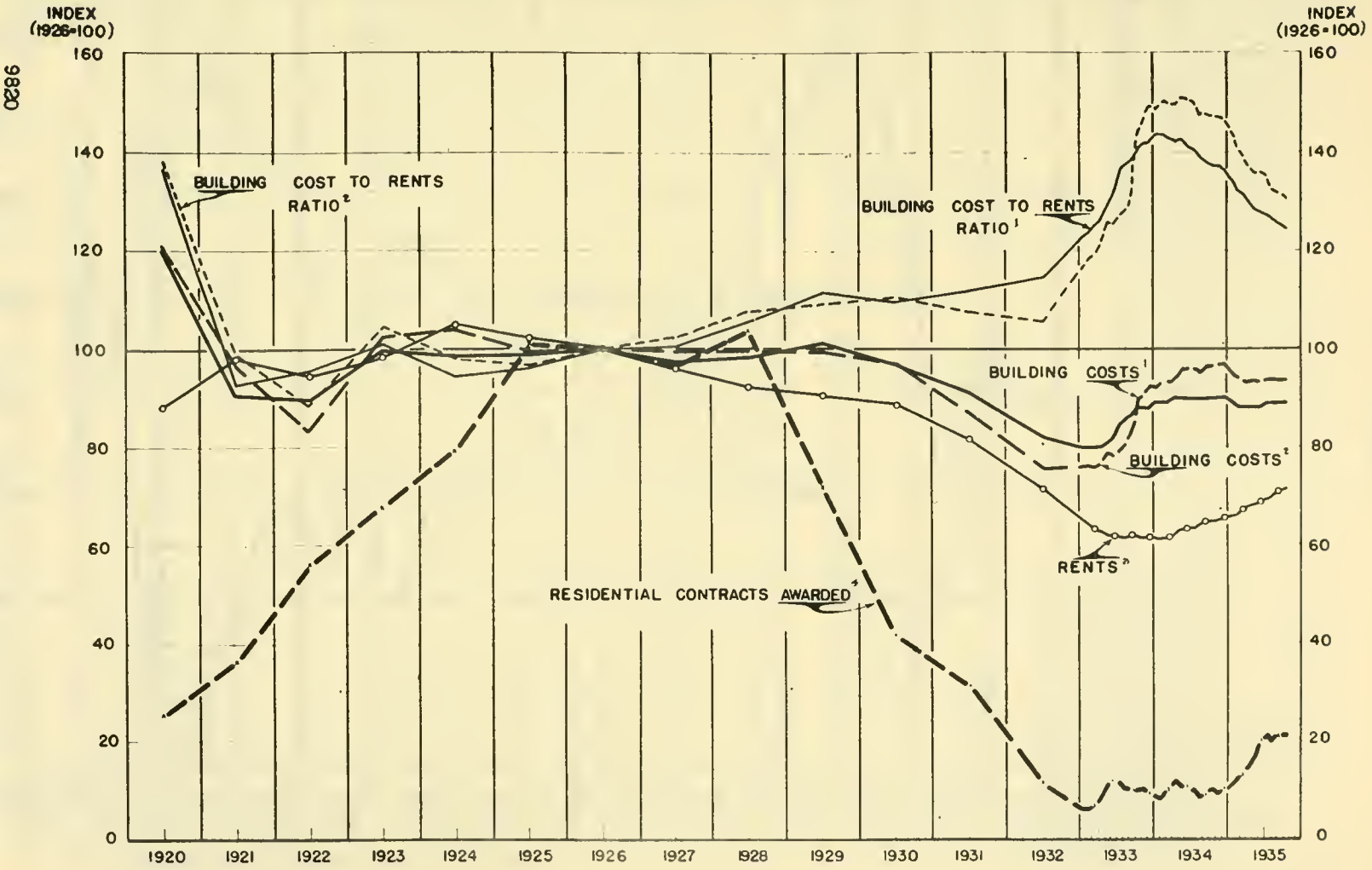
1 - BUREAU OF LABOR STATISTICS, WHOLESALE PRICES OF ALL COMMODITIES EXCEPT FARM AND FOOD PRODUCTS
2 - BUREAU OF LABOR STATISTICS, WHOLESALE PRICES OF FARM AND FOOD PRODUCTS COMBINED
3 - INTERSTATE COMMERCE COMMISSION, CLASS I STEAM RAILWAYS, PASSENGER AND FREIGHT RATES COMBINED

FOR MONTHLY DATA, SEE APPENDIX, TABLE II-A, B, AND C

NRA
DIVISION OF REVIEW
STATISTICS SECTION
No. 199

FACTORS RELATED TO RESIDENTIAL BUILDING

1920-1935



SOURCES:
1 FEDERAL RESERVE BANK OF N Y
2 ENGINEERING NEWS RECORD, "SURVEY OF CURRENT BUSINESS"
3 NATIONAL INDUSTRIAL CONFERENCE BOARD
4 FEDERAL RESERVE BOARD

NRA
DIVISION OF REVIEW
STATISTICS SECTION
NO 455

0286

CHART 21

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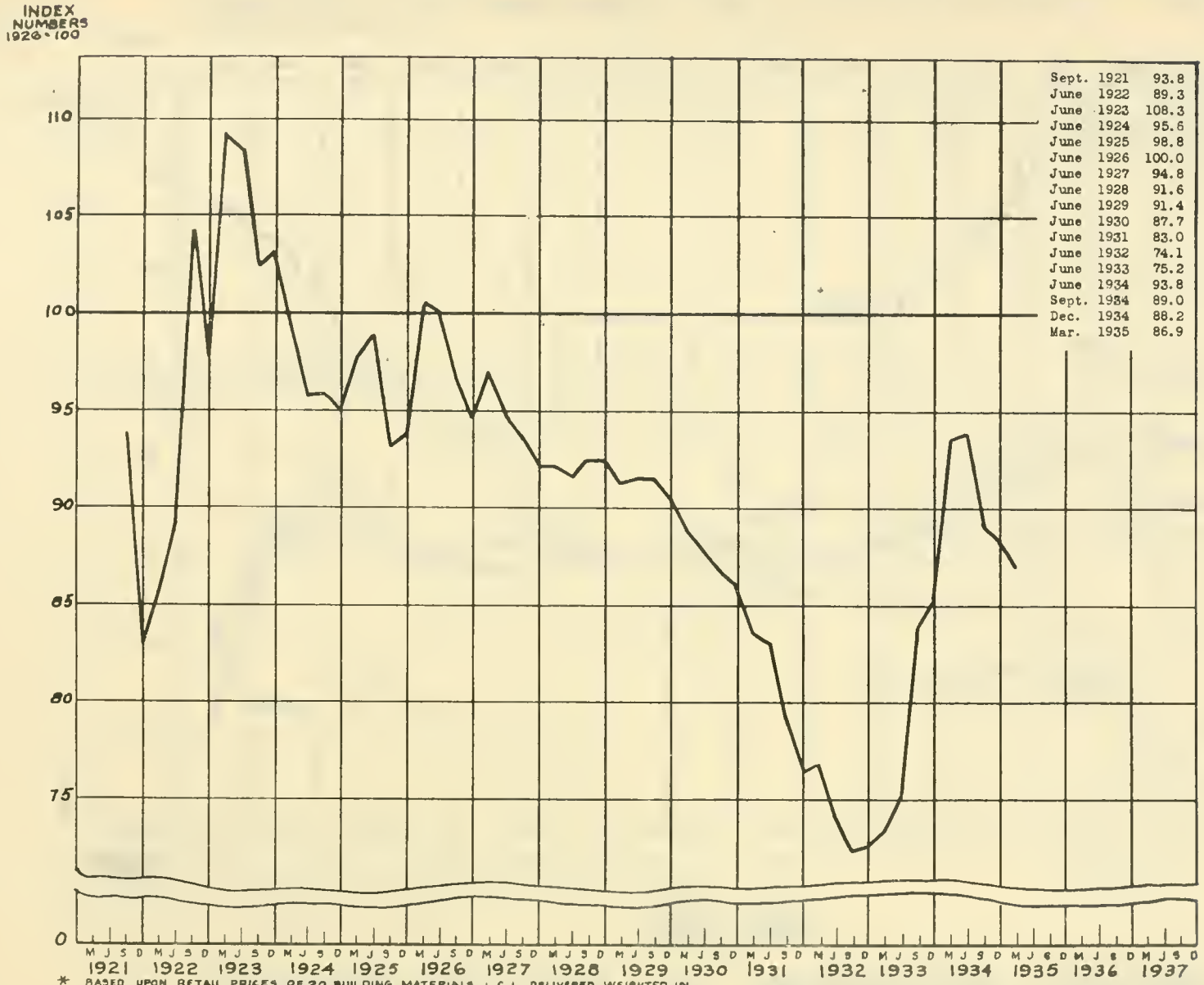
CHART 22

INDEX OF RETAIL BUILDING MATERIALS PRICES - SEPT. 1921 - MAR. 1935*



* BASED UPON RETAIL PRICES OF 20 BUILDING MATERIALS, L.C.L. DELIVERED, WEIGHTED IN ACCORDANCE WITH THEIR RELATIVE IMPORTANCE.

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CHART 23

COMMON BRICK RETAIL PRICES - SEPT. 1921 TO MAR. 1935

L.C.L. DELIVERED

Sept.	1921	$17.10
June	1922	14.45
June	1923	17.30
June	1924	16.59
June	1925	14.81
June	1926	15.60
June	1927	14.65
June	1928	15.00
June	1929	14.90
June	1930	13.82
June	1931	12.98
June	1932	11.53
June	1933	12.04
June	1934	13.97
Sept.	1934	13.85
Dec.	1934	13.66
Mar.	1935	13.73

Source: Bureau of Standards, Division of Building and Housing "Building Materials Prices" Sept. 1921 to June 1933.
Code Authority for the Builders Supplies Trade Sept. 1933 to Dec. 1934.
Reports to N.R.A. from Builders Supplies Retail-

N. R. A.
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CHART 24

CRUSHED STONE RETAIL PRICES SEPT. 1921-MAR. 1935

3/4 INCHES, L.C.L. DELIVERED

SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, "BUILDING MATERIALS AND PRICES", SEPTEMBER 1921 – JUNE 1933
CODE AUTHORITY FOR THE BUILDERS' SUPPLIES TRADE SEPT. 1933-DEC. 1934
REPORTS TO N R A FROM BUILDERS SUPPLIES RETAILERS MARCH 1935

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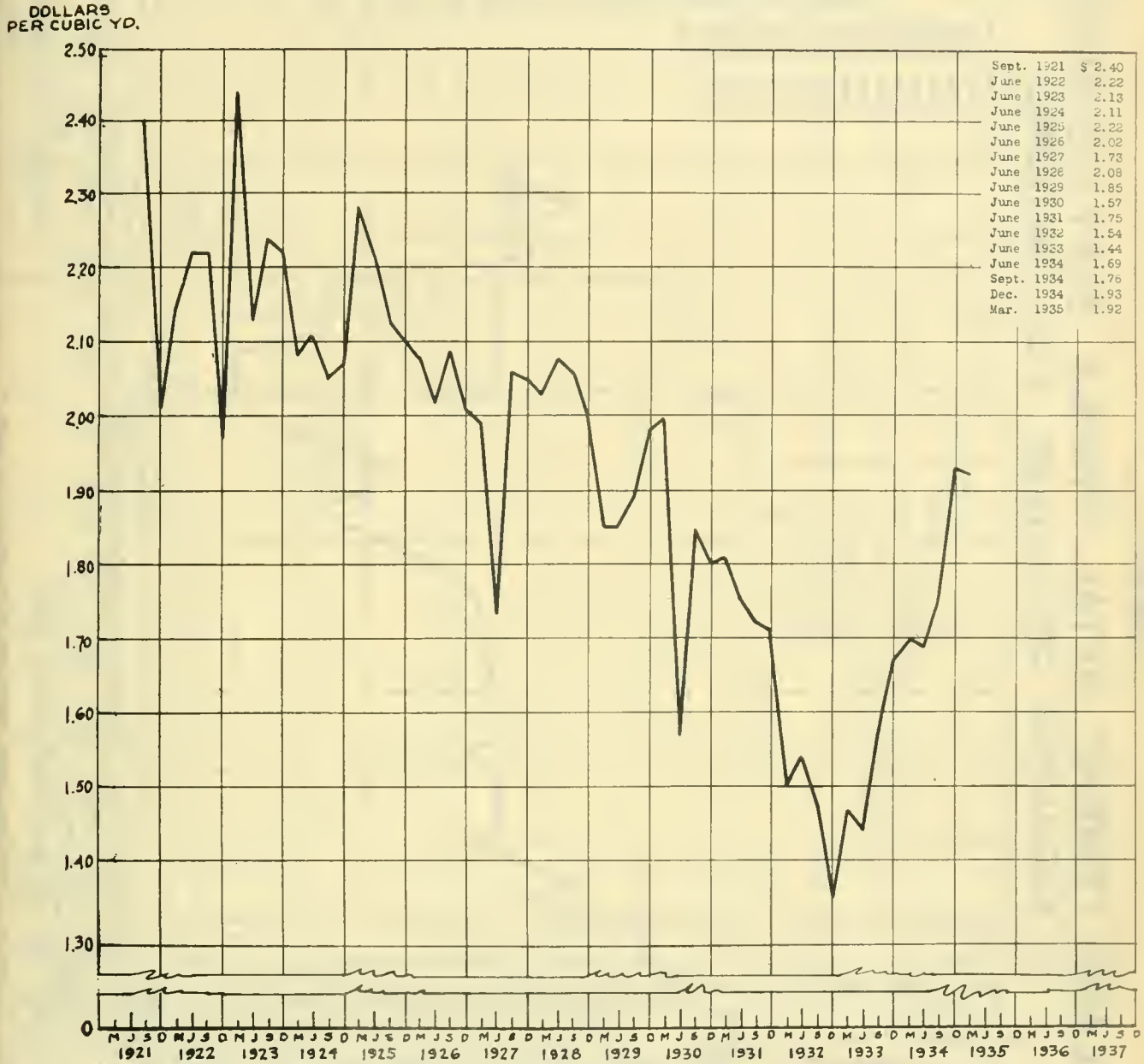
CHART 25

BUILDING SAND RETAIL PRICES - SEPT. 1921 - MAR. 1935.

L.C.L. DELIVERED



SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, "BUILDING MATERIAL PRICES, SEPT. 1921 TO JUNE 1933. CODE AUTHORITY FOR THE BUILDERS SUPPLIES TRADE SEPT. 1933 TO DEC. 1934. REPORTS TO N.R.A. FROM BUILDERS SUPPLIES RETAILERS, MAR. 1935

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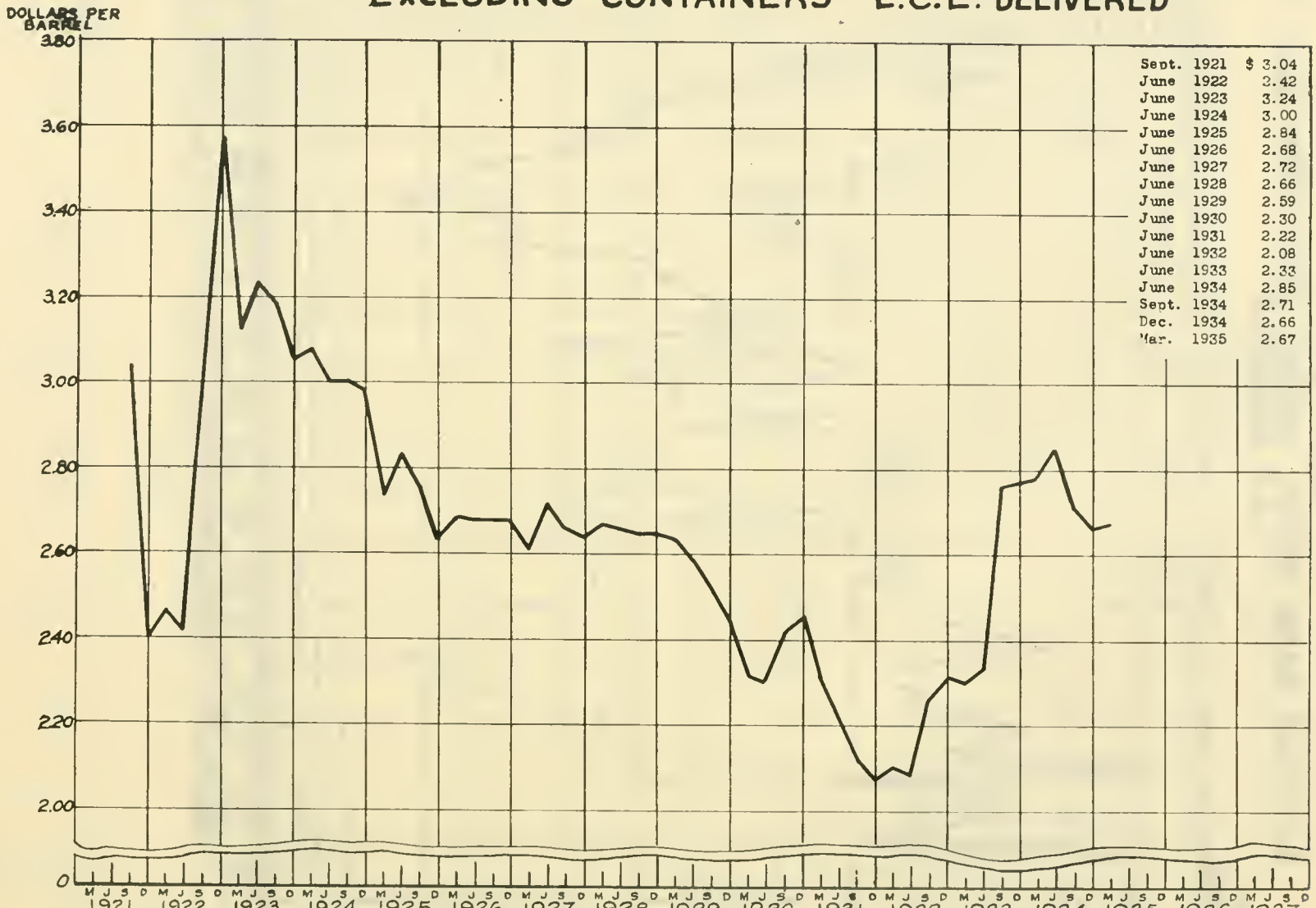
CHART 26

PORTLAND CEMENT RETAIL PRICES, SEPT. 1921-MAR. 1935

EXCLUDING CONTAINERS L.C.L. DELIVERED



Sept.	1921	$ 3.04
June	1922	2.42
June	1923	3.24
June	1924	3.00
June	1925	2.84
June	1926	2.68
June	1927	2.72
June	1928	2.66
June	1929	2.59
June	1930	2.30
June	1931	2.22
June	1932	2.08
June	1933	2.33
June	1934	2.85
Sept.	1934	2.71
Dec.	1934	2.66
Mar.	1935	2.67

SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, "BUILDING MATERIALS PRICES", SEPT. 1921 TO JUNE, 1933.
CODE AUTHORITY FOR THE BUILDERS SUPPLIES TRADE SEPT. 1933 TO DEC. 1934.
REPORTS TO N.R.A. FROM BUILDERS SUPPLIES RETAILERS, MAR. 1935

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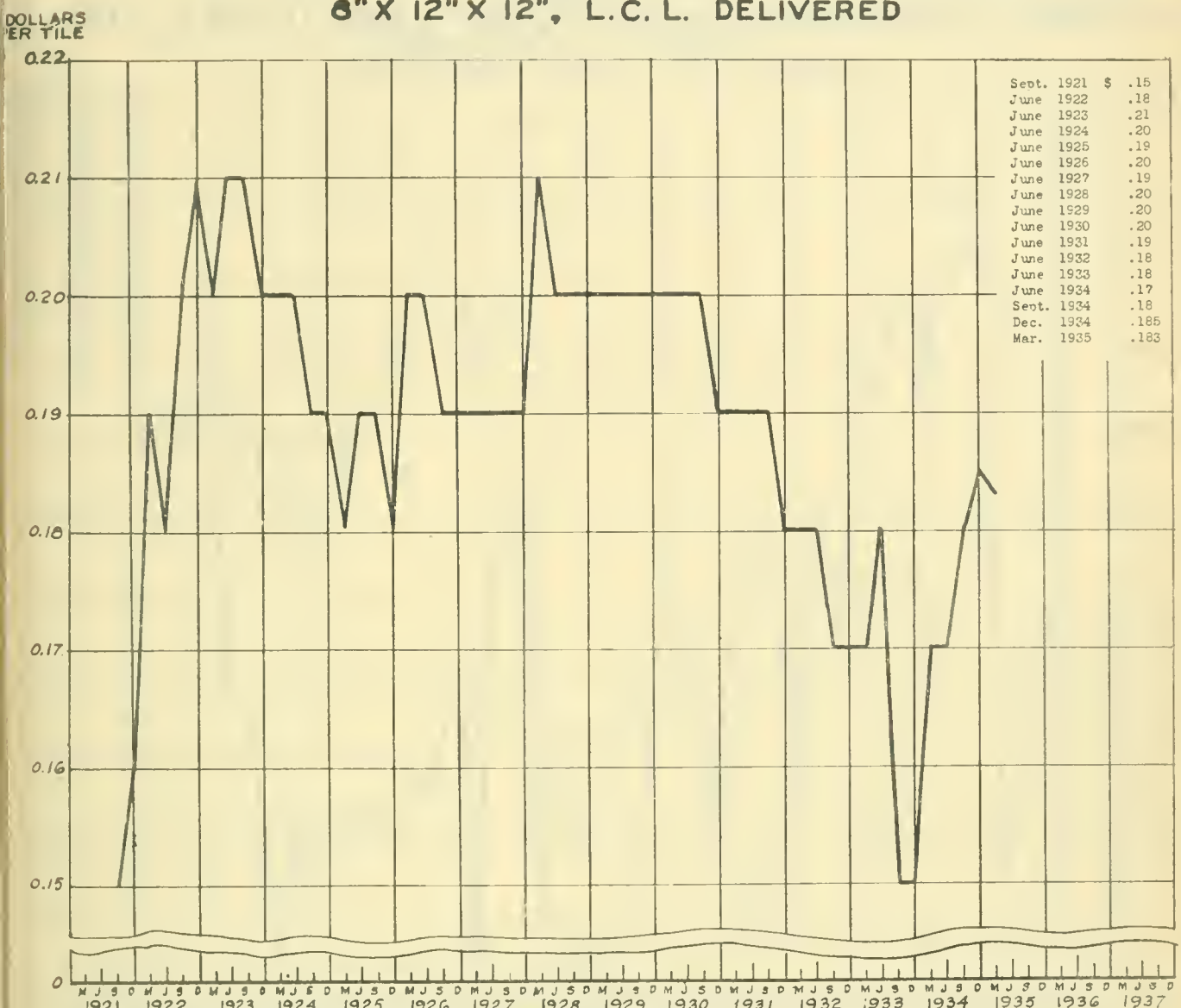
RESEARCH AND PLANNING

CHART 27

HOLLOW TILE RETAIL PRICES - SEPT. 1921 - MAR. 1935.
8" X 12" X 12", L.C.L. DELIVERED



SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, "BUILDING MATERIALS PRICES," SEPT. 1921 TO JUNE 1933
CODE AUTHORITY FOR THE BUILDER'S SUPPLIES TRADE, SEPT. 1933 TO DEC. 1934
REPORTS TO N.R.A. FROM BUILDERS SUPPLIES RETAILERS, MAR. 1935

N.R.A.
RESEARCH AND PLANNING DIVISION

CHART 28

GYPSUM PLASTER RETAIL PRICES-SEPT. 1921 TO MAR. 1935

GROUND, L.C.L. DELIVERED

Source: Bureau of Standards, Division of Building and Housing "Building Materials Prices", Sept. 1921 to June 1933.
Code Authority for the Builders Supplies Trade, Sept. 1933 to Dec. 1934.
Reports to N.R.A from Builders Supplies Retailers, Mar. 1935.

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RESEARCH AND PLANNING

CHART 29

GYPSUM BOARD RETAIL PRICES - SEPT. 1921 - MAR. 1935

3/8 INCHES, L.C.L. DELIVERED

Sept.	1921	$39.20
June	1922	36.60
June	1923	38.60
June	1924	35.10
June	1925	37.35
June	1926	42.35
June	1927	40.95
June	1928	25.95
June	1929	30.30
June	1930	30.81
June	1931	25.00
June	1932	28.50
June	1933	27.19
June	1934	41.50
Sept.	1934	41.50
Dec.	1934	41.20
Mar.	1935	39.63

SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, "BUILDING MATERIALS PRICES" SEPT. 1921 TO JUNE 1933.
CODE AUTHORITY FOR RETAIL LUMBER AND BUILDING MATERIALS PRODUCTS INDUSTRY SEPT. 1933 TO DEC. 1934.
REPORTS TO NRA FROM BUILDING MATERIALS RETAILERS MAR. 1935.

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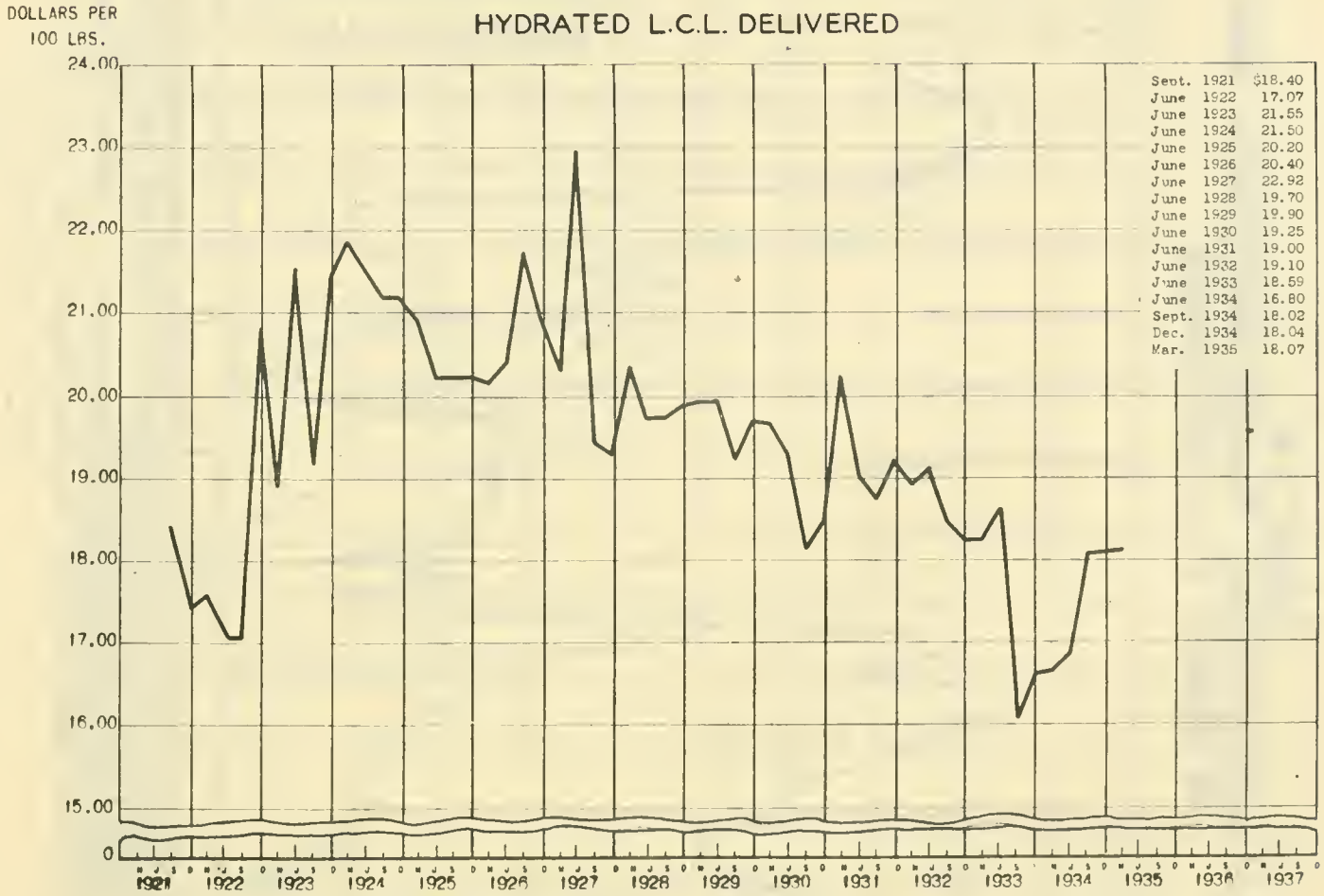
CHART 30

LIME RETAIL PRICES–SEPT. 1921 TO MAR. 1935

HYDRATED L.C.L. DELIVERED



Source: Bureau of Standards, Division of Building and Housing, "Building Materials Prices" Sept. 1921 to June 1933.
Code Authority for the Building Supplies Trade Sept. 1933 to Dec. 1934.
Reports to N.R.A. from Builders Supplies Retailers March 1935.

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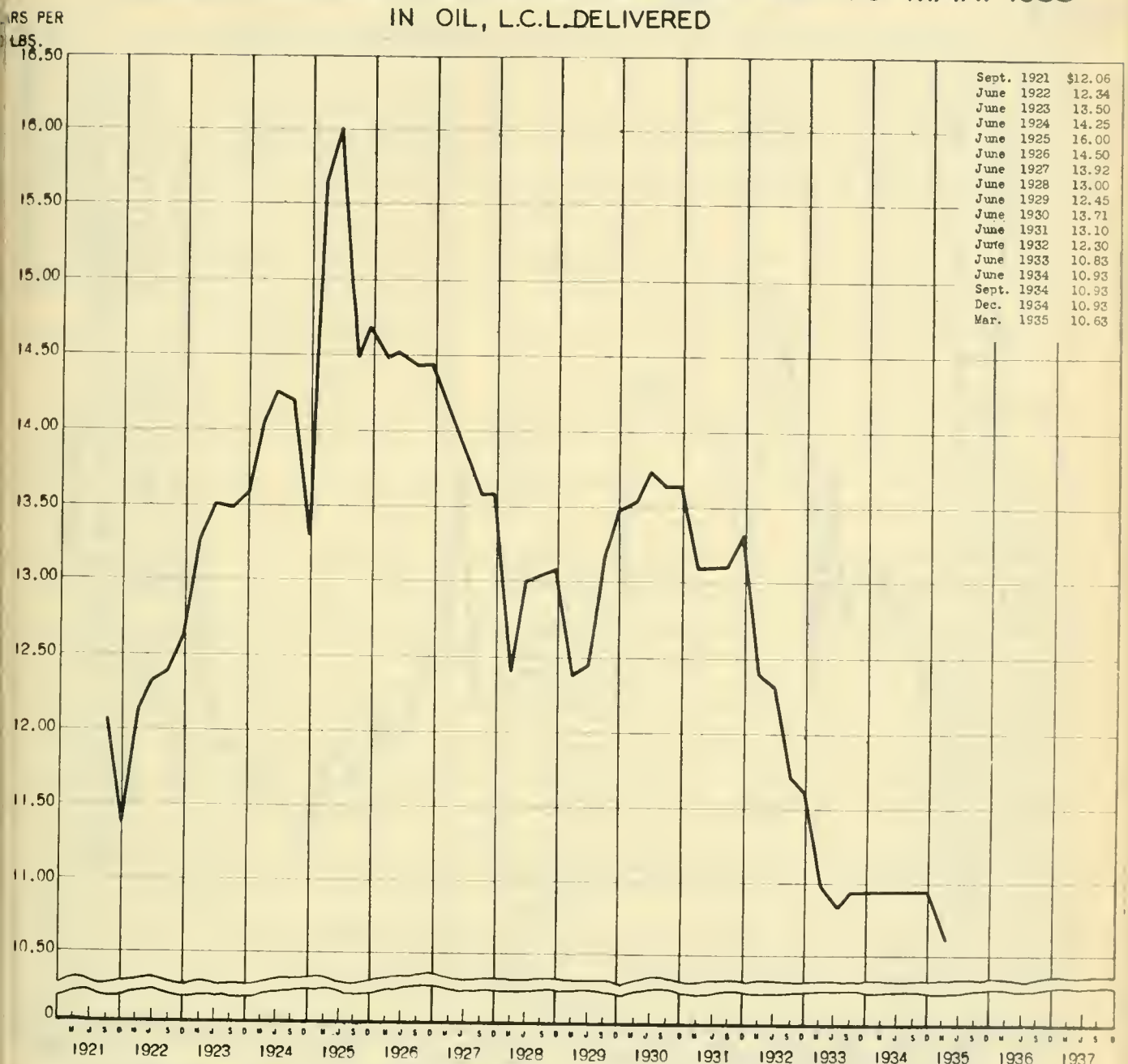
CHART 31

WHITE LEAD RETAIL PRICES - SEPT. 1921 TO MAR. 1935

IN OIL, L.C.L. DELIVERED



Sept.	1921	$12.06
June	1922	12.34
June	1923	13.50
June	1924	14.25
June	1925	16.00
June	1926	14.50
June	1927	13.92
June	1928	13.00
June	1929	12.45
June	1930	13.71
June	1931	13.10
June	1932	12.30
June	1933	10.83
June	1934	10.93
Sept.	1934	10.93
Dec.	1934	10.93
Mar.	1935	10.63

Source: Bureau of Standards, Division of Building and Housing, "Building Materials Prices", Sept. 1921 to June 1933.
Code Authority of the Lead Industry, Sept. 1933 to Mar. 1935.

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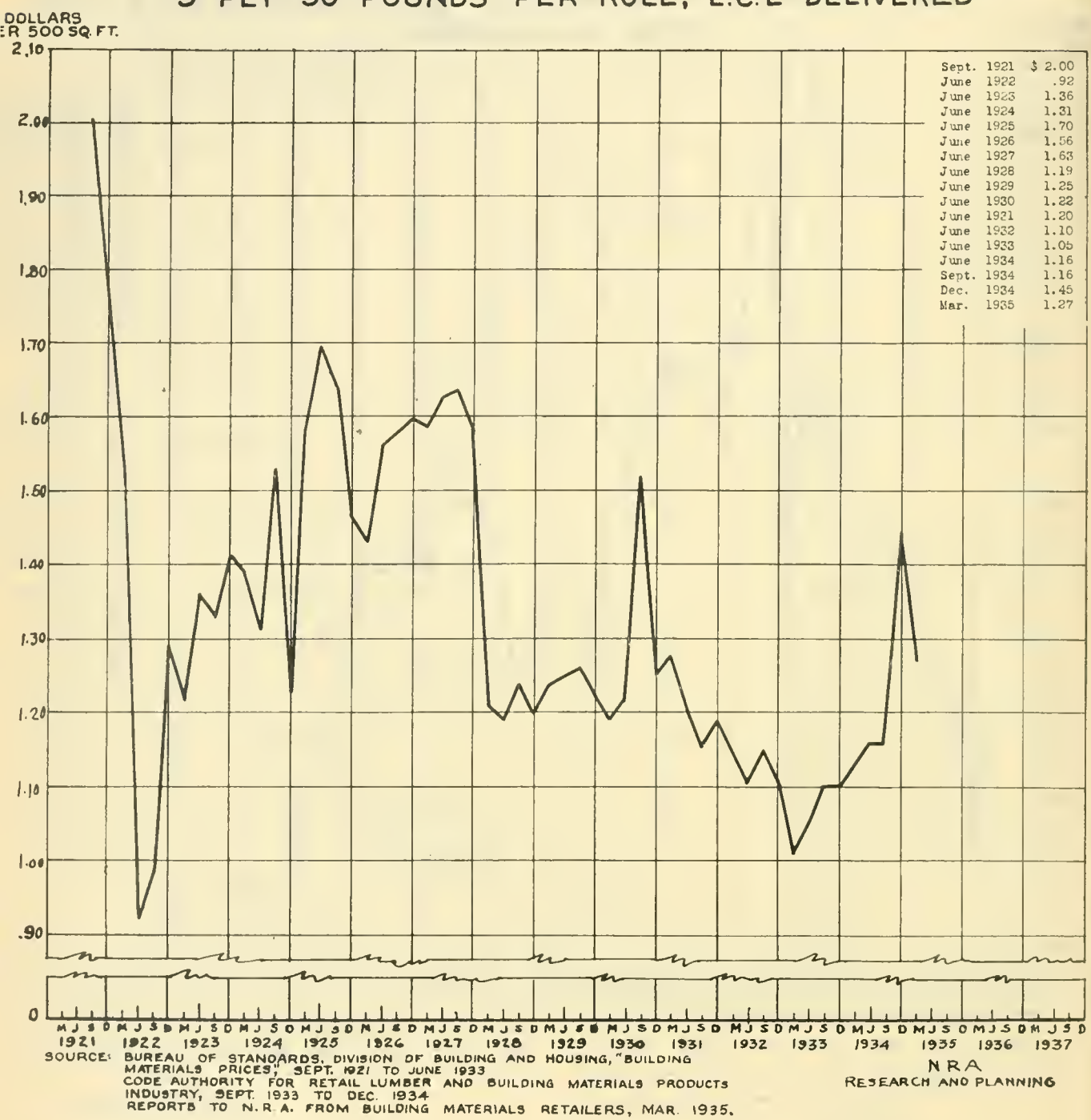
CHART 32

ROSIN SIZED SHEETING RETAIL PRICES-SEPT. 1921-MAR. 1935

3 PLY 50 POUNDS PER ROLL, L.C.L DELIVERED



SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, "BUILDING MATERIALS PRICES," SEPT. 1921 TO JUNE 1933
CODE AUTHORITY FOR RETAIL LUMBER AND BUILDING MATERIALS PRODUCTS INDUSTRY, SEPT. 1933 TO DEC. 1934
REPORTS TO N.R.A. FROM BUILDING MATERIALS RETAILERS, MAR. 1935.

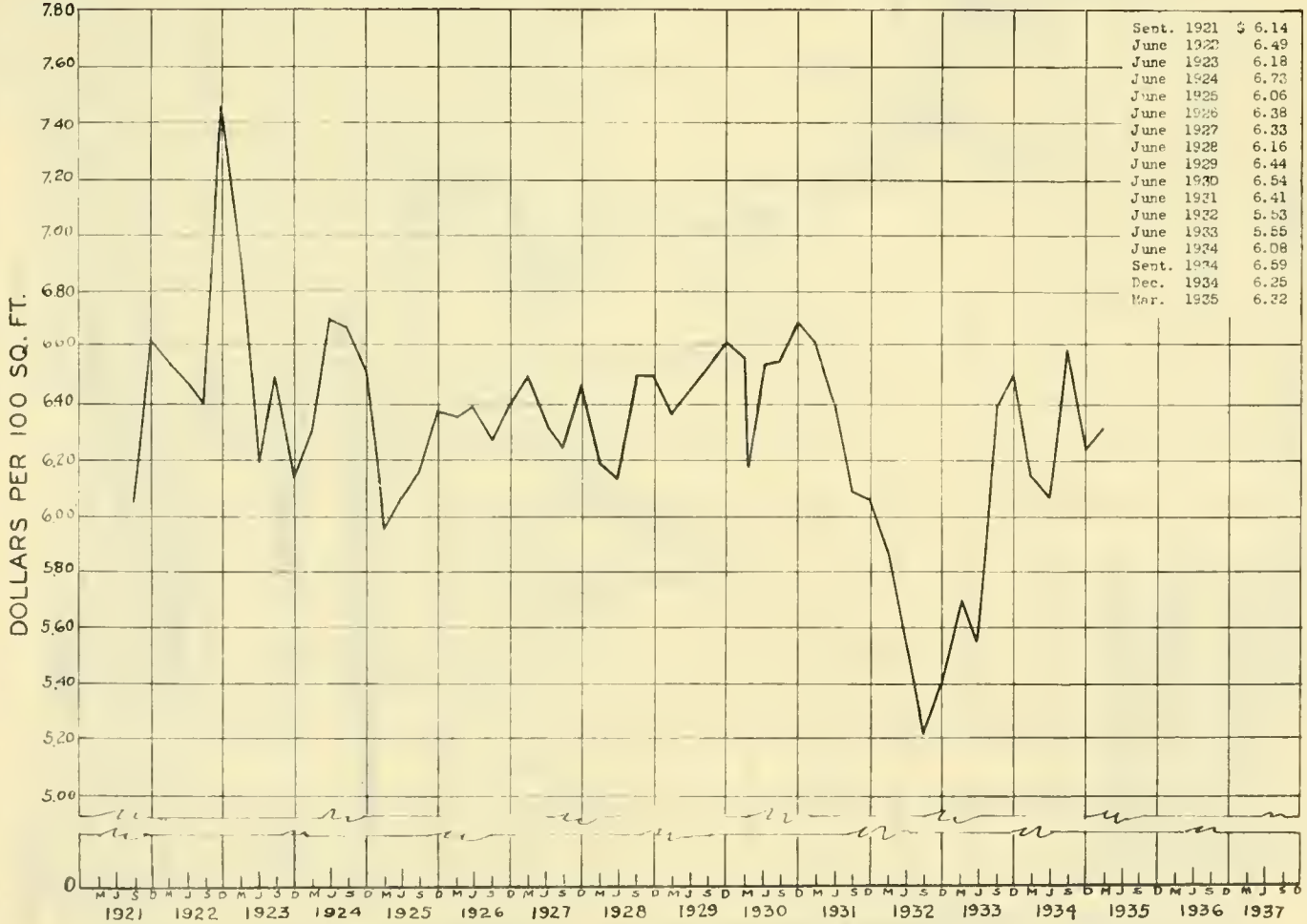
NRA
RESEARCH AND PLANNING

CHART 33

ASPHALT SHINGLES RETAIL PRICES

SEPT. 1921 – MAR. 1935

10X36 STANDARD, 4 IN1, GREEN, 195 POUNDS, L.C.L. DELIVERED



SOURCE – BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING
"BUILDING MATERIALS PRICES," SEPT 1921 TO JUNE 1933.
CODE AUTHORITY FOR RETAIL LUMBER AND BUILDING MATERIALS
PRODUCTS INDUSTRY, SEPT 1933 TO DEC. 1934
REPORTS TO NRA FROM BUILDING MATERIALS RETAILERS, MAR. 1935

NRA
RESEARCH AND PLANNING

CHART 34

ROOFING SLATE RETAIL PRICES - SEPT. 1921 - MAR. 1935

#1 RIBBON, L.C.L. DELIVERED

SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, BUILDING MATERIALS PRICES SEPT. 1921 TO JUNE, 1933
CODE AUTHORITY FOR BUILDERS SUPPLIES TRADE SEPT. 1933 TO DEC. 1934
REPORTS TO N.R.A. FROM BUILDERS SUPPLIES RETAILERS MAR. 1935.

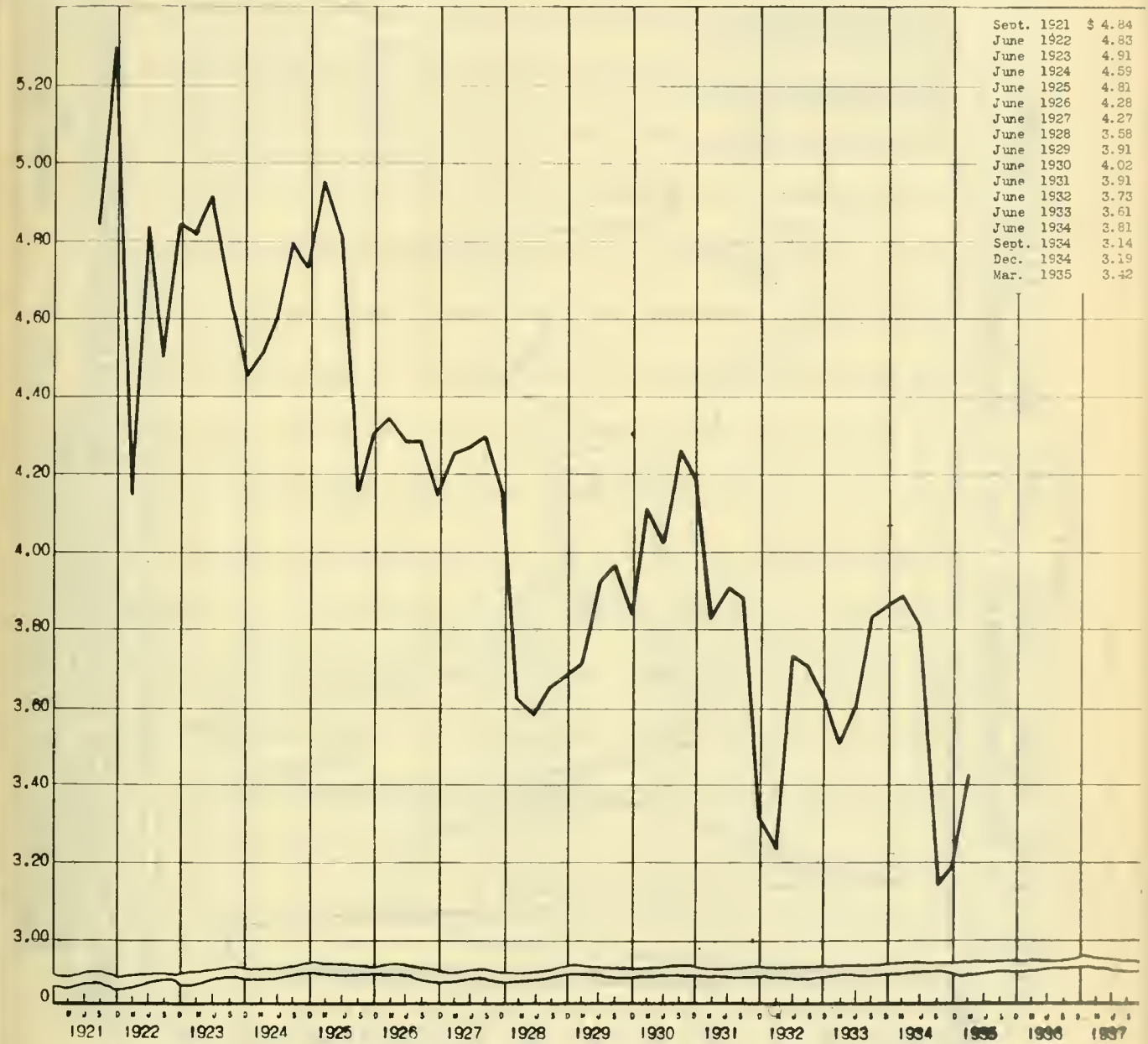
N.R.A.
RESEARCH AND PLANNING

CHART 35

WINDOW GLASS RETAIL PRICES - SEPT. 1921 TO MAR. 1935

SINGLE A 10X12 L.C.L. DELIVERED

OLLARS
). FT.



Sept. 1921	$ 4.84
June 1922	4.83
June 1923	4.91
June 1924	4.59
June 1925	4.81
June 1926	4.28
June 1927	4.27
June 1928	3.58
June 1929	3.91
June 1930	4.02
June 1931	3.91
June 1932	3.73
June 1933	3.61
June 1934	3.81
Sept. 1934	3.14
Dec. 1934	3.19
Mar. 1935	3.42

Source: Bureau of Standards, Division of Building and Housing, "Building Materials Prices", Sept. 1921 to June 1933.
Reports to N.R.A. from Retailers, Sept. 1933 to March 1935.

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RESEARCH AND PLANNING

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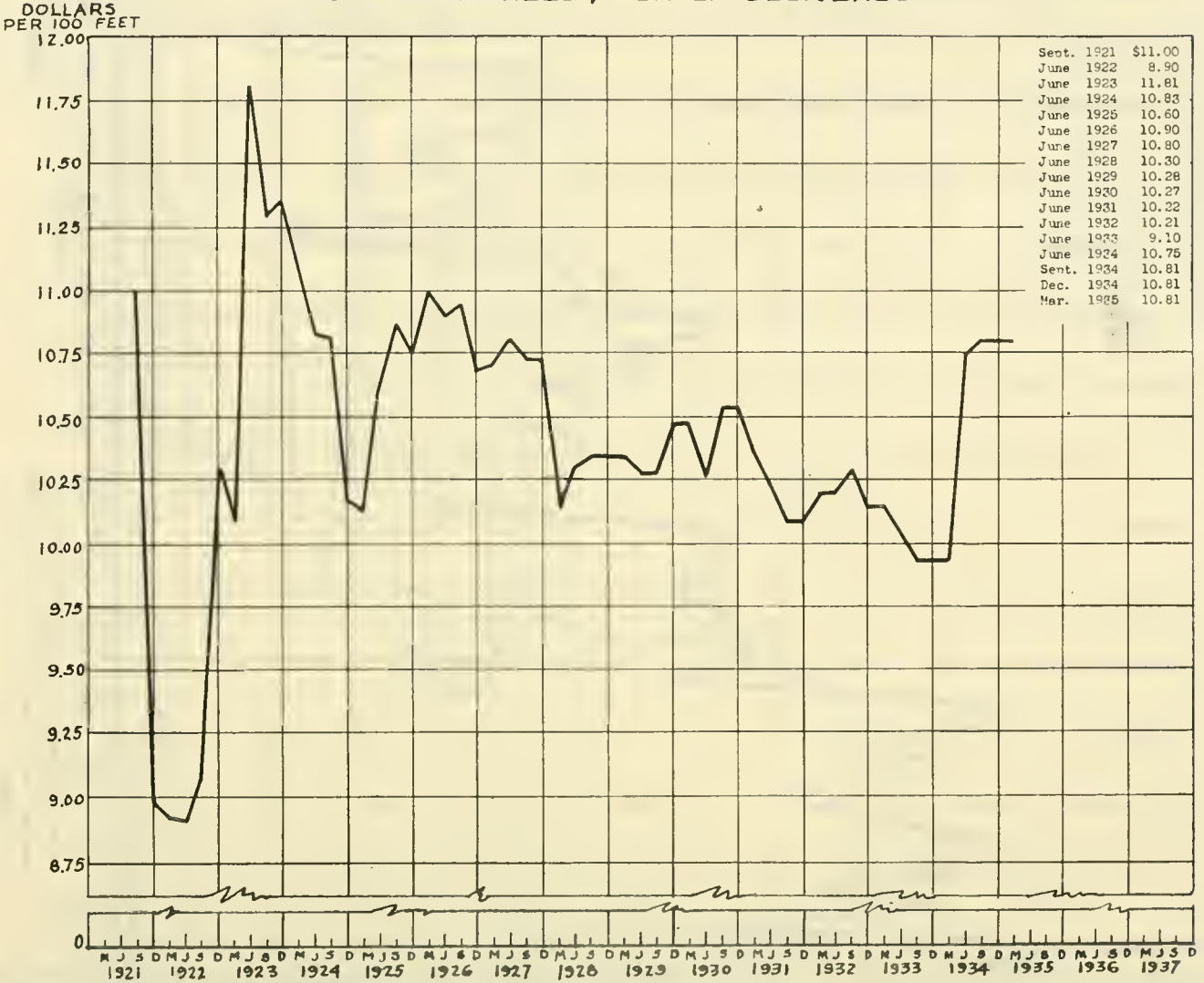
CHART 36

STEEL PIPE RETAIL PRICES - SEPT. 1921 — MAR. 1935.

1 INCH GALVANIZED, L.C.L. DELIVERED



Sept.	1921	$11.00
June	1922	8.90
June	1923	11.81
June	1924	10.83
June	1925	10.60
June	1926	10.90
June	1927	10.80
June	1928	10.30
June	1929	10.28
June	1930	10.27
June	1931	10.22
June	1932	10.21
June	1933	9.10
June	1934	10.75
Sept.	1934	10.81
Dec.	1934	10.81
Mar.	1935	10.81

SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, "BUILDING MATERIALS PRICES", SEPT. 1921 TO JUNE 1933.
CODE AUTHORITY FOR THE BUILDERS SUPPLIES TRADE-SEPT. 1933-DEC. 1934
REPORTS TO N.R.A. FROM PLUMBING SUPPLY DEALERS, MAR. 1935.

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RESEARCH AND PLANNING

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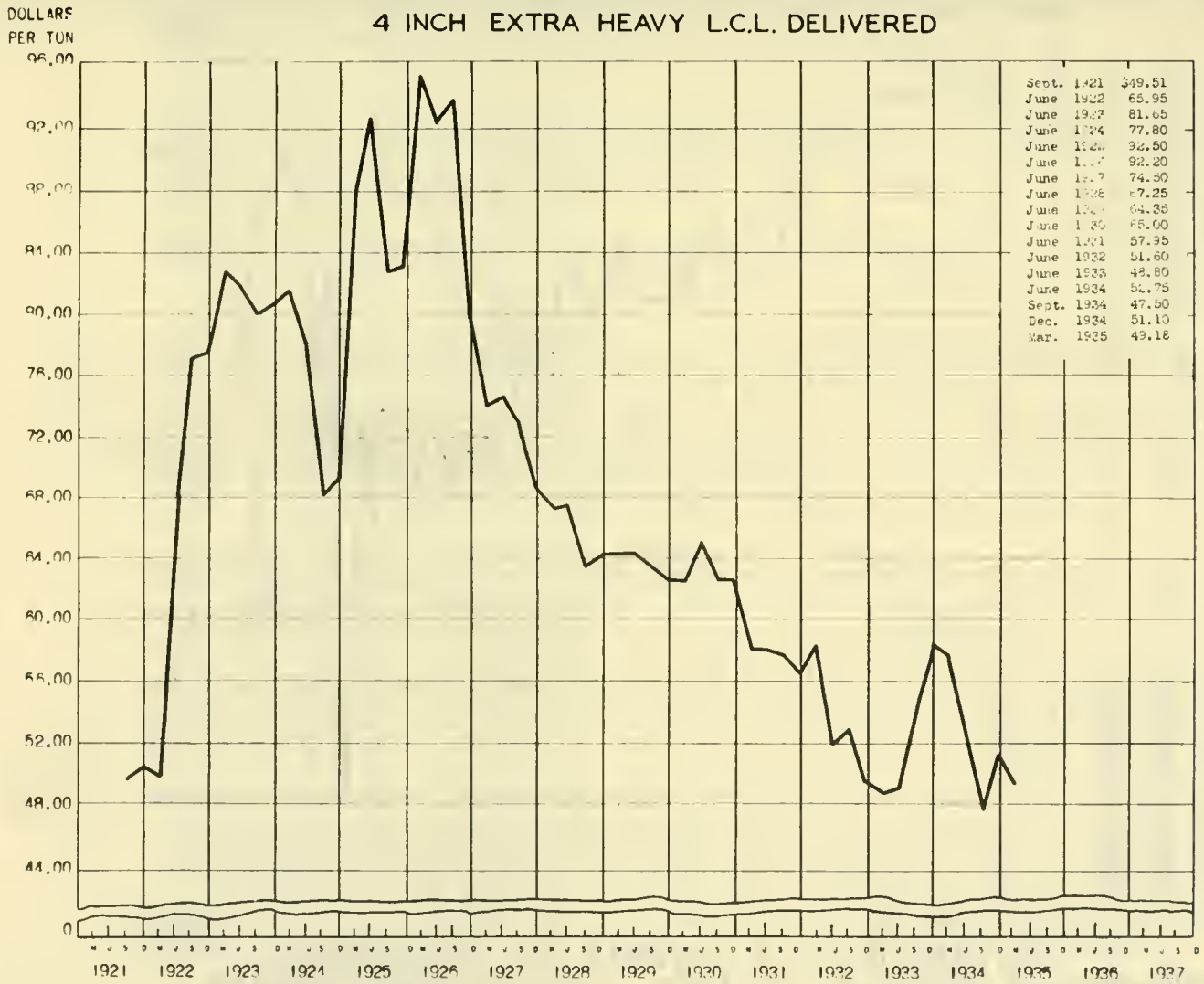
CHART 37

CAST IRON SOIL PIPE RETAIL PRICES - SEPT. 1921 TO MAR. 1935

4 INCH EXTRA HEAVY L.C.L. DELIVERED



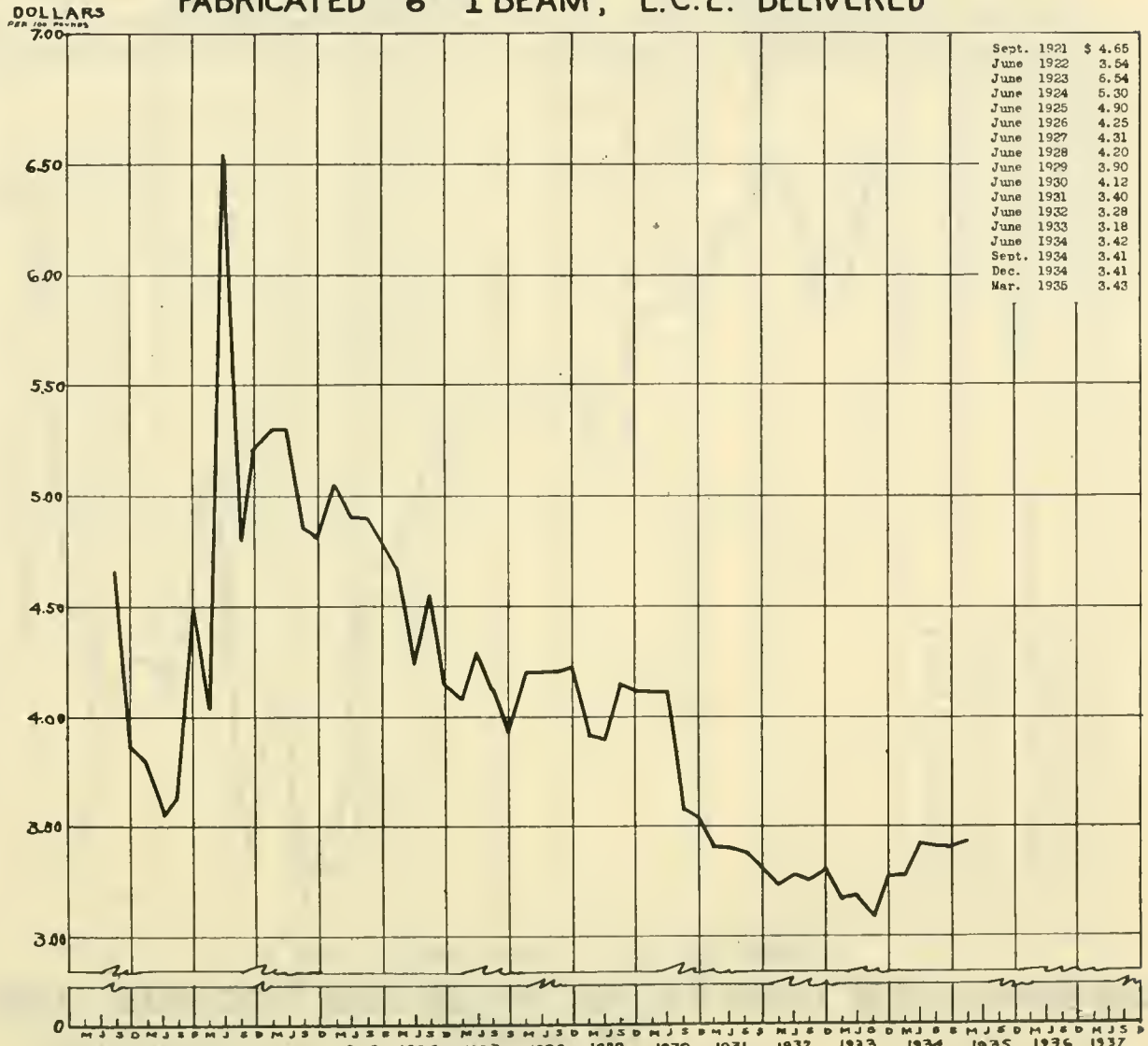
Source: Bureau of Standards, Division of Buildara and Housing, "Building Materials Prices" Sept. 1921 to June 1933.
Reports to N. R. A. from P. S. D., Sept 1933 to March 1935.

N. R. A.
RESEARCH AND PLANNING

CHART 38

STRUCTURAL STEEL RETAIL PRICES SEPT. 1921-MAR. 1935

FABRICATED 6" I BEAM, L.C.L. DELIVERED



SOURCE: BUREAU OF STANDARDS, DIVISION OF BUILDING AND HOUSING, "BUILDING MATERIALS AND PRICES", SEPT. 1931 - JUNE 1933
"IRON AGE" SEPT. 1933 - MAR. 1935

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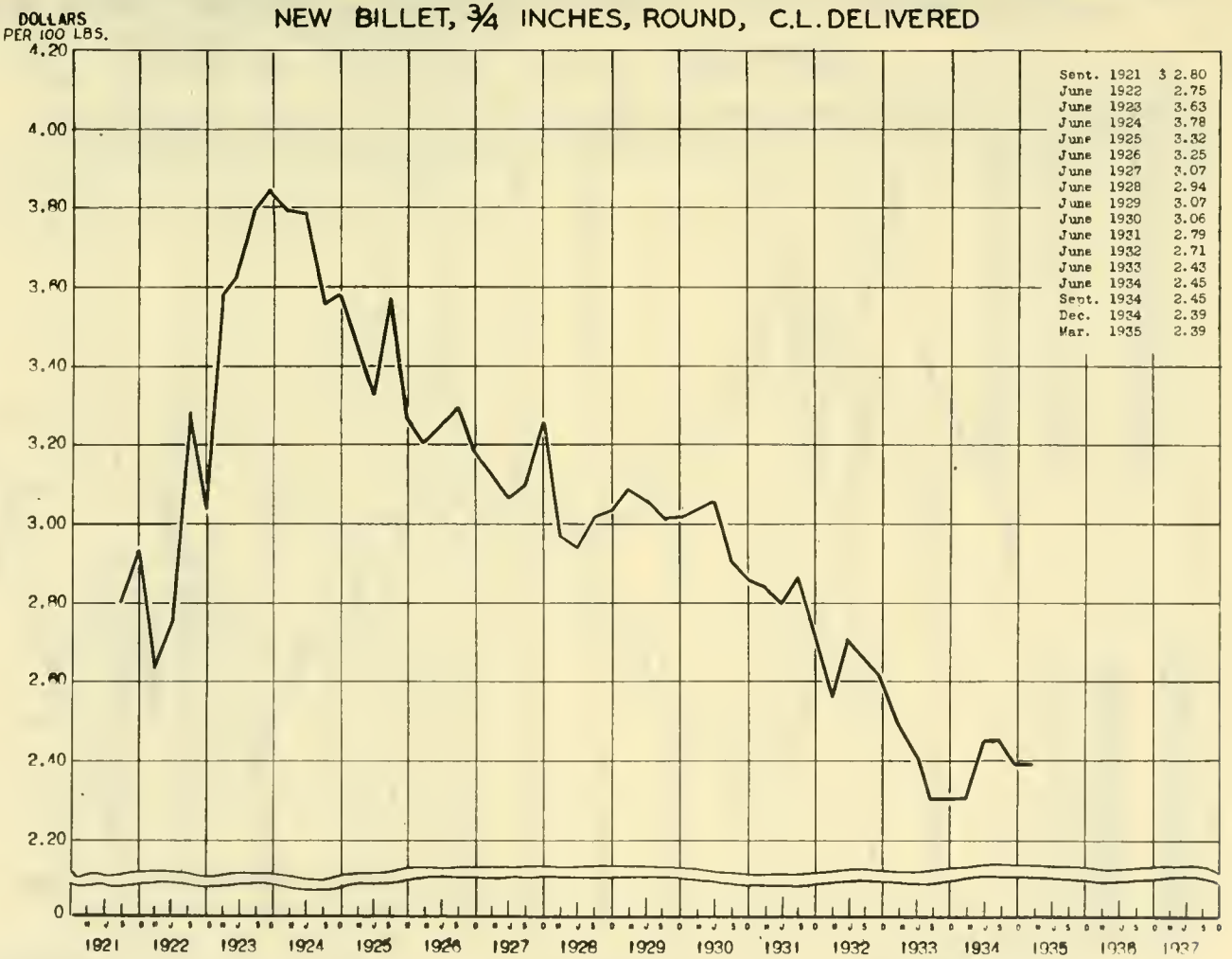
CHART 39

REINFORCING STEEL BARS WHOLESALE PRICES–SEPT. 1921 TO MAR. 1935

NEW BILLET, ¾ INCHES, ROUND, C.L. DELIVERED



Source: Bureau of Standards, Division of Building and Housing, "Building Materials Prices" Sept. 1921 to June 1933.
Code Authority for the Reinforcing Materials Fabricating Industry, Sept. 1933 to Mar. 1935.

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RESEARCH AND PLANNING

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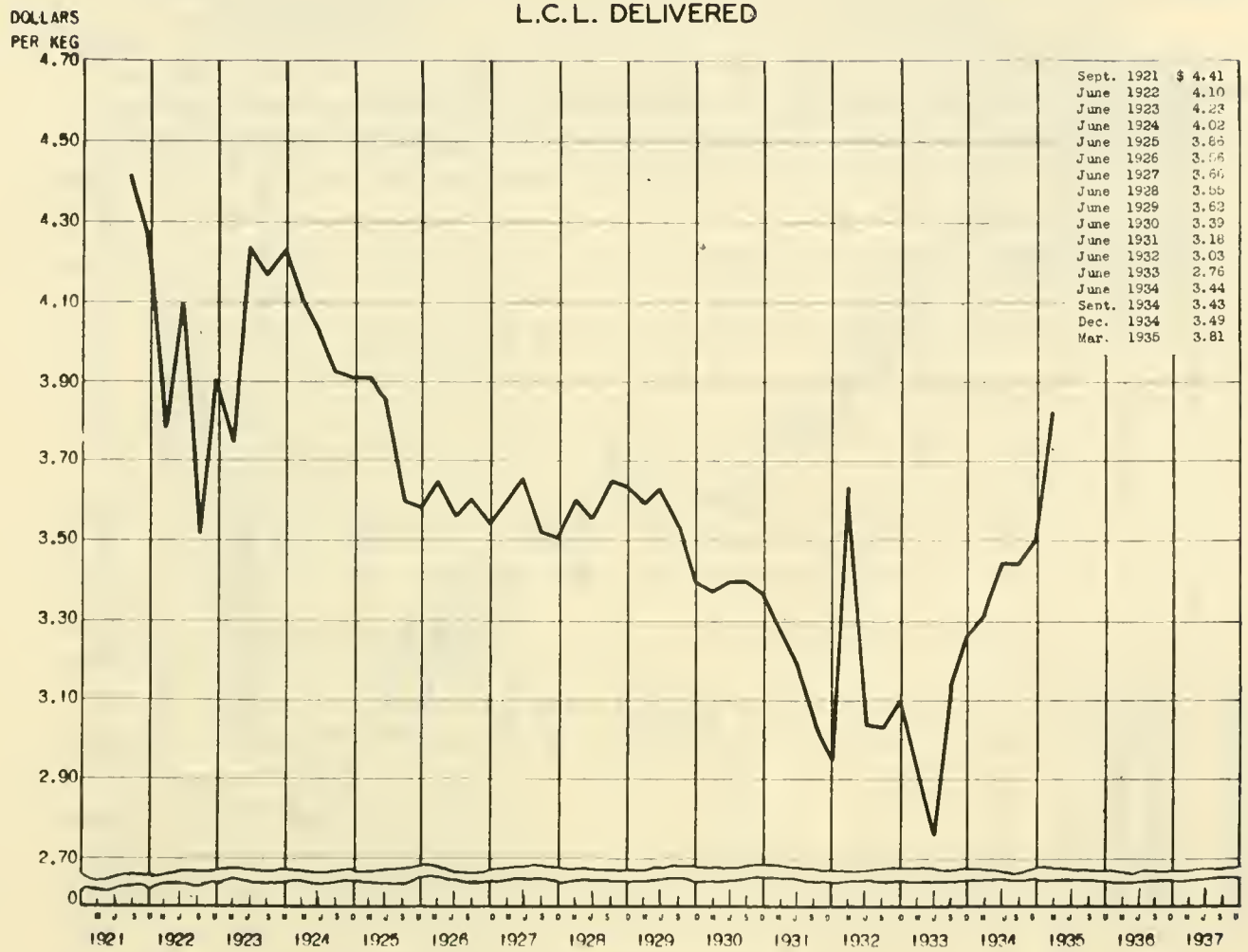
CHART 40

WIRE NAILS RETAIL PRICES - SEPT. 1921 TO MAR. 1935

L.C.L. DELIVERED



Source: Bureau of Standards, Division of Building and Housing, "Building Materials Prices" Sept. 1921 to June 1933.
Code Authority for Retail Lumber and Building Materials Products Industry, Sept. 1933 to Dec. 1934.
Reports to N.R.A. from Building Materials Retailers, March 1935.

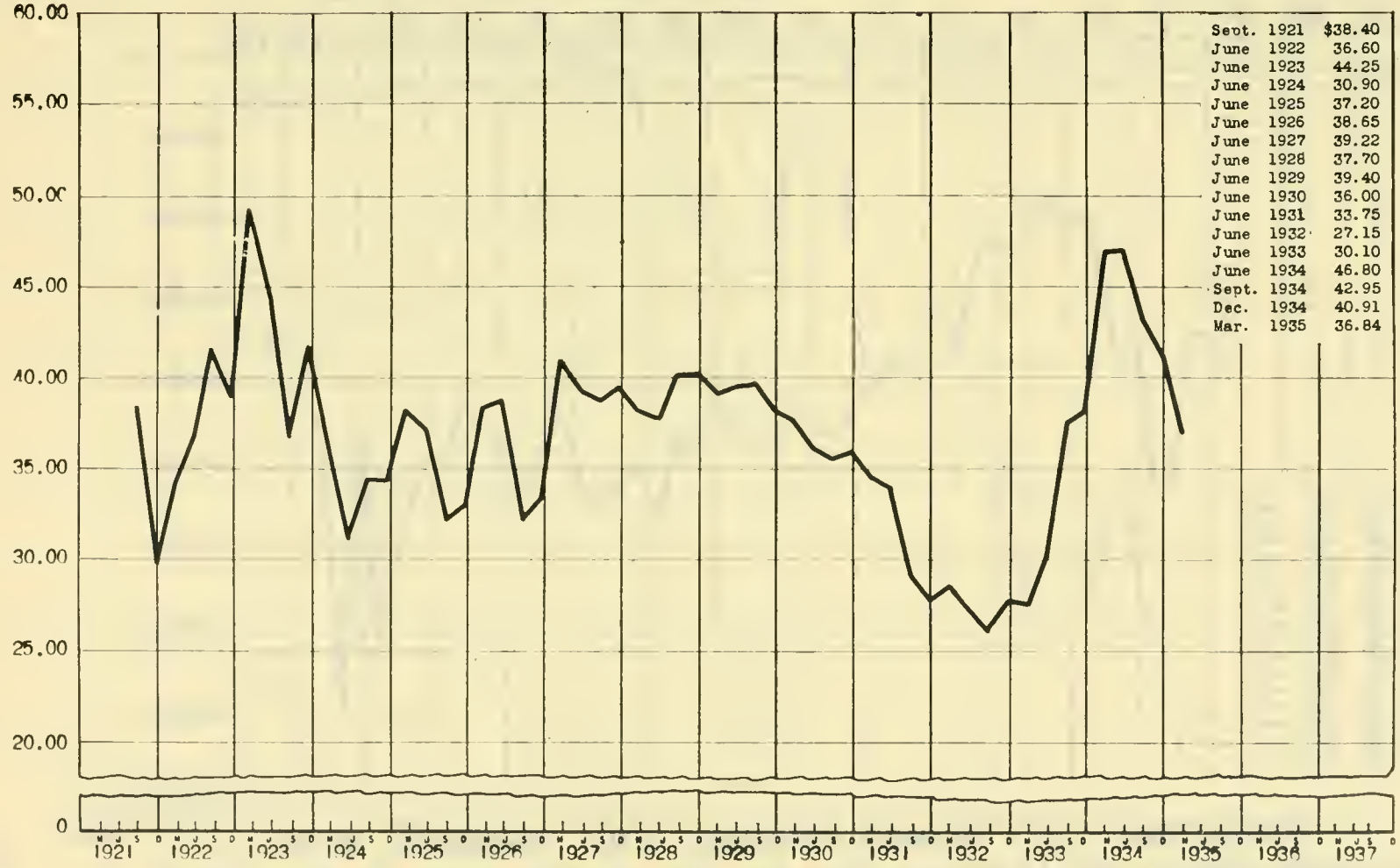
N. R. A.
RESEARCH AND PLANNING

CHART 41

DOUGLAS FIR RETAIL PRICES - SEPT. 1921 - MAR. 1935

No. 1 COMMON, 2"X4"X16', L.C.L. DELIVERED

ars
1000 Bd. Ft.



Sept.	1921	$38.40
June	1922	36.60
June	1923	44.25
June	1924	30.90
June	1925	37.20
June	1926	38.65
June	1927	39.22
June	1928	37.70
June	1929	39.40
June	1930	36.00
June	1931	33.75
June	1932	27.15
June	1933	30.10
June	1934	46.80
Sept.	1934	42.95
Dec.	1934	40.91
Mar.	1935	36.84

SOURCE: Bureau of Standards, Division of Building and Housing,
"Building Materials Prices", Sept. 1921 to June 1933.
Code Authority for Retail Lumber and Building Materials
Products Industry, Sept. 1933 to Dec. 1934.

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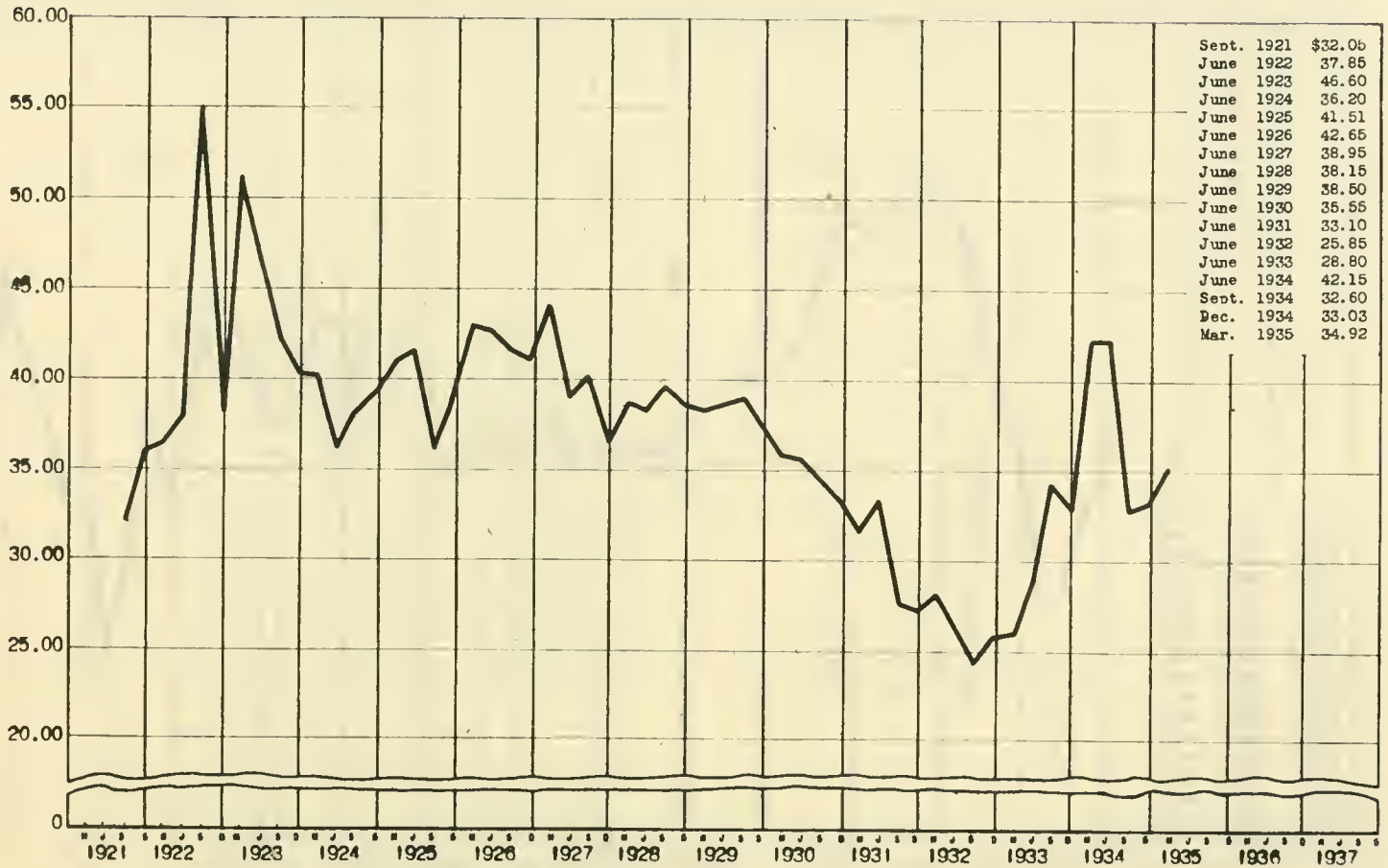
Research and Planning Division

CHART 42

SHORT LEAF YELLOW PINE RETAIL PRICES,- SEPT. 1921-MAR. 1935

No. 2 COMMON, 1"X6", RANDOM LENGTH, L.C.L. DELIVERED

Dollars
Per 1000 Bd. Ft.



Sept.	1921	$32.06
June	1922	37.85
June	1923	46.60
June	1924	36.20
June	1925	41.51
June	1926	42.65
June	1927	38.95
June	1928	38.15
June	1929	38.50
June	1930	35.55
June	1931	33.10
June	1932	25.85
June	1933	28.80
June	1934	42.15
Sept.	1934	32.60
Dec.	1934	33.03
Mar.	1935	34.92

SOURCE: Bureau of Standards, Division of Building and Housing, "Building Materials Prices", Sept. 1921 to June 1933,
Code Authority for Retail Lumber and Building Materials,
Products Industry, Sept. 1933 to Dec. 1934,
Reports to N.R.A from Retail Lumbers Dealers, Mar. 1935.

N. R. A.
Research and Planning Division

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CHART 43

INDEX OF RETAIL PLUMBING FIXTURES PRICES,- MAR.1926-MAR.1935*

* BASED UPON INDIVIDUAL SERIES FROM SEARS, ROEBUCK & CO. AND MONTGOMERY WARD CO. FOR BUILT-IN-TUB (5½ FT.), SINK (42", ROLLED RIM), AND CLOSET OUTFIT (28½" HIGH), L.C.L. DELIVERED

RESEARCH AND PLANNING
NRA

D. ECONOMIC BEHAVIOR

Preceding sections have presented price, production and employment data separately. But they are interrelated in fact, and one cannot be changed without affecting the others, and there are many other factors beside these. How these factors work together to encourage expansion of an industry or compel contraction, how the industry reacts to them, may be called the economic behavior of that industry, or its operative characteristics.

Remedial measures which take cognizance of these operating characteristics should have a better chance of obtaining their objectives.

An industry is an instrument through which goods and services are supplied. In the last analysis, its purpose is to provide products of one sort or another for consumers. But under the capitalist system this purpose is attained as a by-product of the quest for profit, and is rarely envisaged as an end in itself. Each business decision, whether to expand production or contract it, to follow an erratic seasonal patter in production or regularize it, to lower prices or raise them, to advertise, to improve quality, to introduce new products, or abandon old, to employ a large research staff, to install new machinery, to build a new plant, is made for the purpose of increasing profits or cutting deficits.

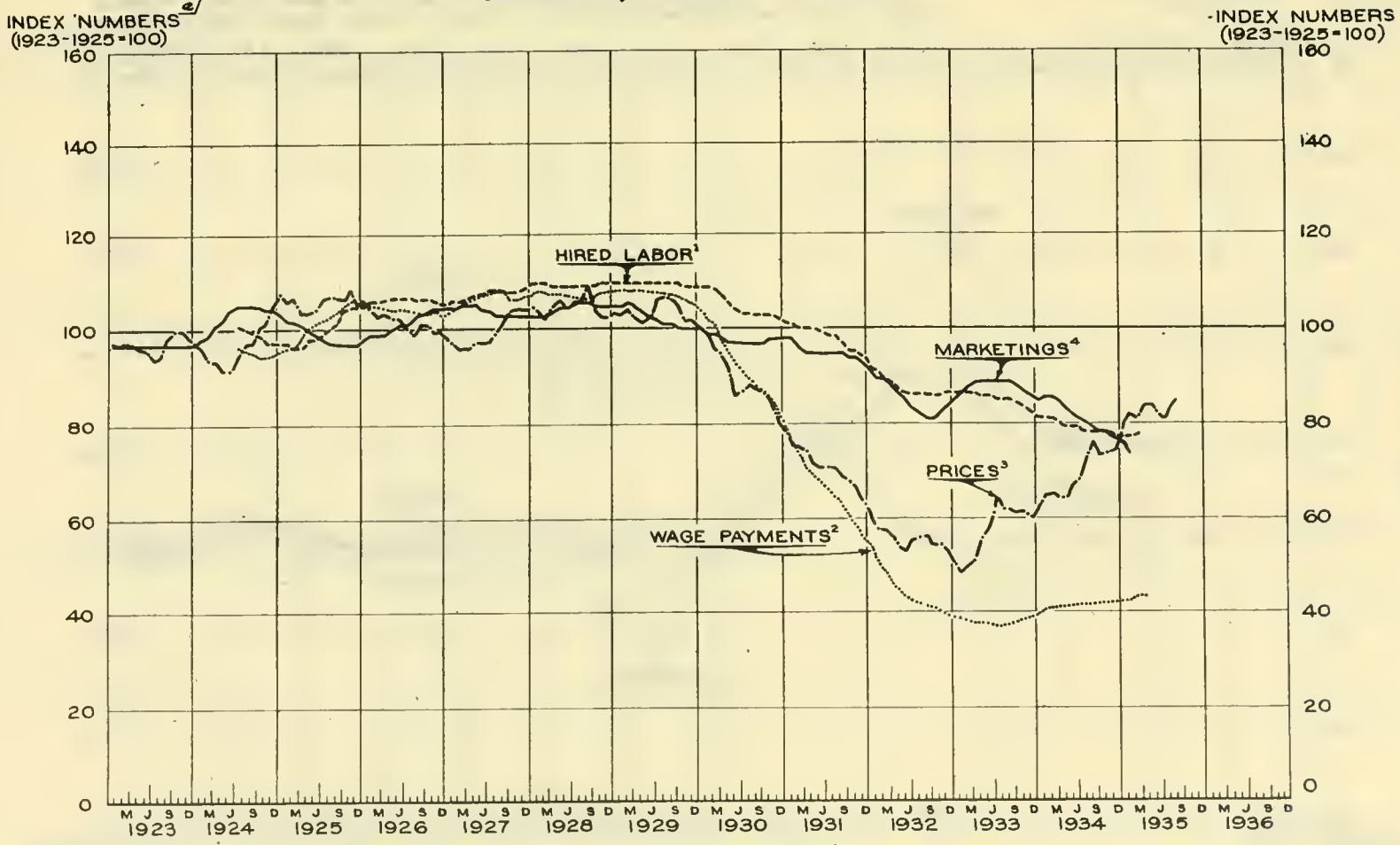
No industry is static. There are vast numbers of economic relationships with outside factors and among internal elements which are continually in a state of change. Profit opportunities are always changing. New products force out old, foreign nations put up tariffs, there is a deflation of the general price level, bank credit expands or contracts, there is general prosperity or depression, and so on. Pressure on the profit motive forces the industry to bow to the new trend. The usual conception of the dynamics of adjustment is that it occurs through the market place where any change reflects itself on price, under the spur of competition. But the extent of truth in this hypothesis is a matter for inquiry in each case. How does this particular industry adjust itself? In some industries certain factors are extremely inflexible and the burden of any necessary adjustment must be taken up elsewhere.

The significance and strength of various external and internal elements vary tremendously. There are areas of flexibility and others of inflexibility which accept or shift the burdens imposed by the processes of change. An economic analysis must regard an industry as a living organism and analyze (1) the external and internal sources of disturbance, (2) the processes whereby the industry makes its adjustments to these factors and (3) the effects of the procedure upon the many interested parties.

The following charts present for some important industries a few of the factors whose interrelations require study. Employment, payrolls, prices and production are shown for agriculture manufacturing and railroads. Price and production charts are given for bituminous coal, cement, cigarettes, cotton, cotton goods, newsprint, plate glass, sulfuric acid, and zinc.

AGRICULTURAL MARKETINGS, PRICES, HIRED LABOR, AND WAGE PAYMENTS

JANUARY, 1923 TO DATE



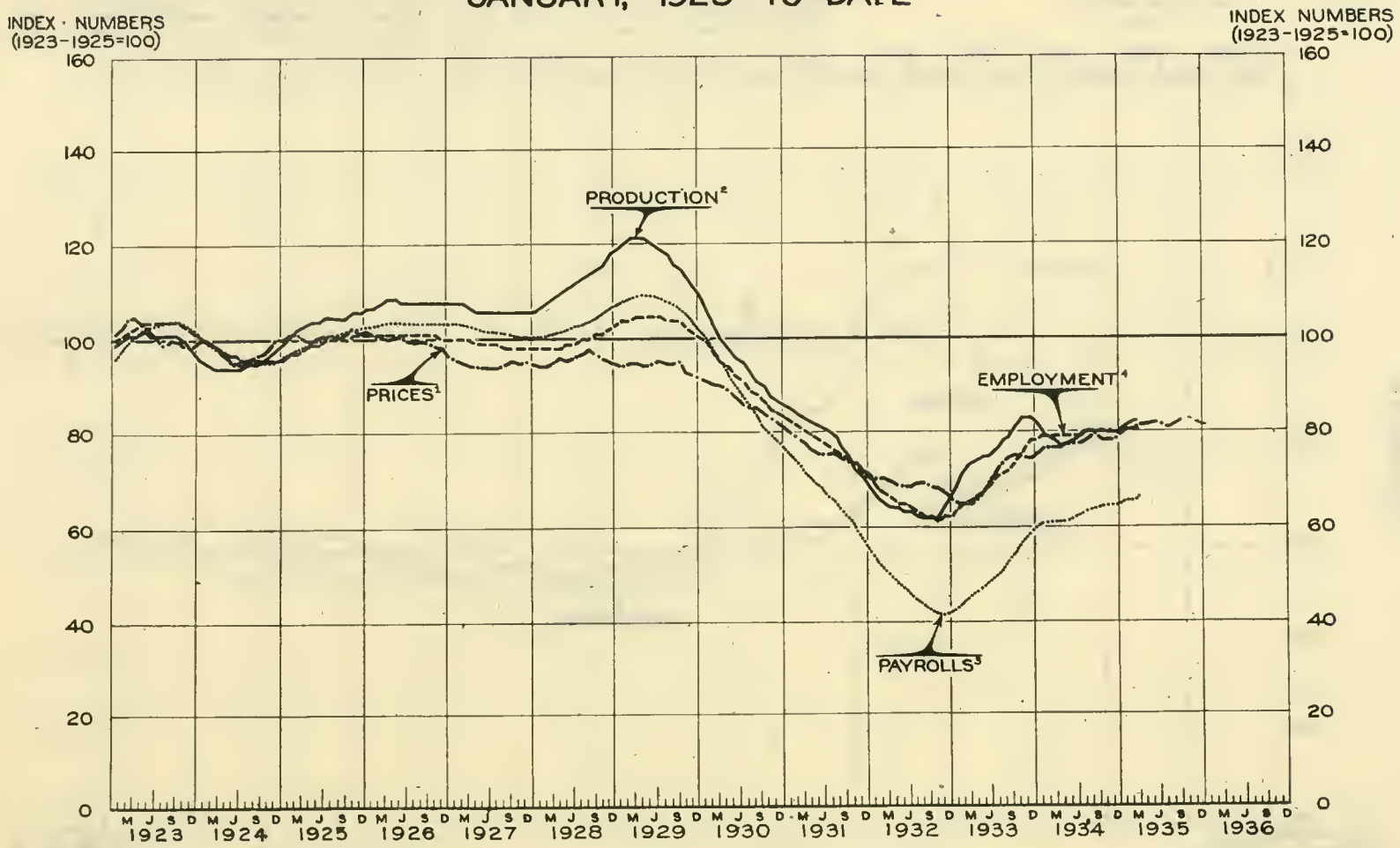
[1] BASIC DATA FROM DEPARTMENT OF AGRICULTURE (12 MONTH MOVING AVERAGE, CENTERED)
[2] BASIC DATA FROM DEPARTMENT OF AGRICULTURE (12 MONTH MOVING AVERAGE, CENTERED)
[3] BUREAU OF LABOR STATISTICS, WHOLESALE PRICES OF FARM AND FOOD PRODUCTS COMBINED
[4] BUREAU OF FOREIGN AND DOMESTIC COMMERCE INDEX (12 MONTH MOVING AVERAGE, CENTERED)
a/ INDEX FOR HIRED LABOR AND WAGE PAYMENTS, 1924-1925=100

FOR MONTHLY DATA, SEE APPENDIX, TABLE VI-A, B, C, AND D

NRA
DIVISION OF REVIEW
STATISTICS SECTION
No. 309

CHART 44

MANUFACTURING PRODUCTION, PRICES, EMPLOYMENT, AND PAYROLLS
JANUARY, 1923 TO DATE



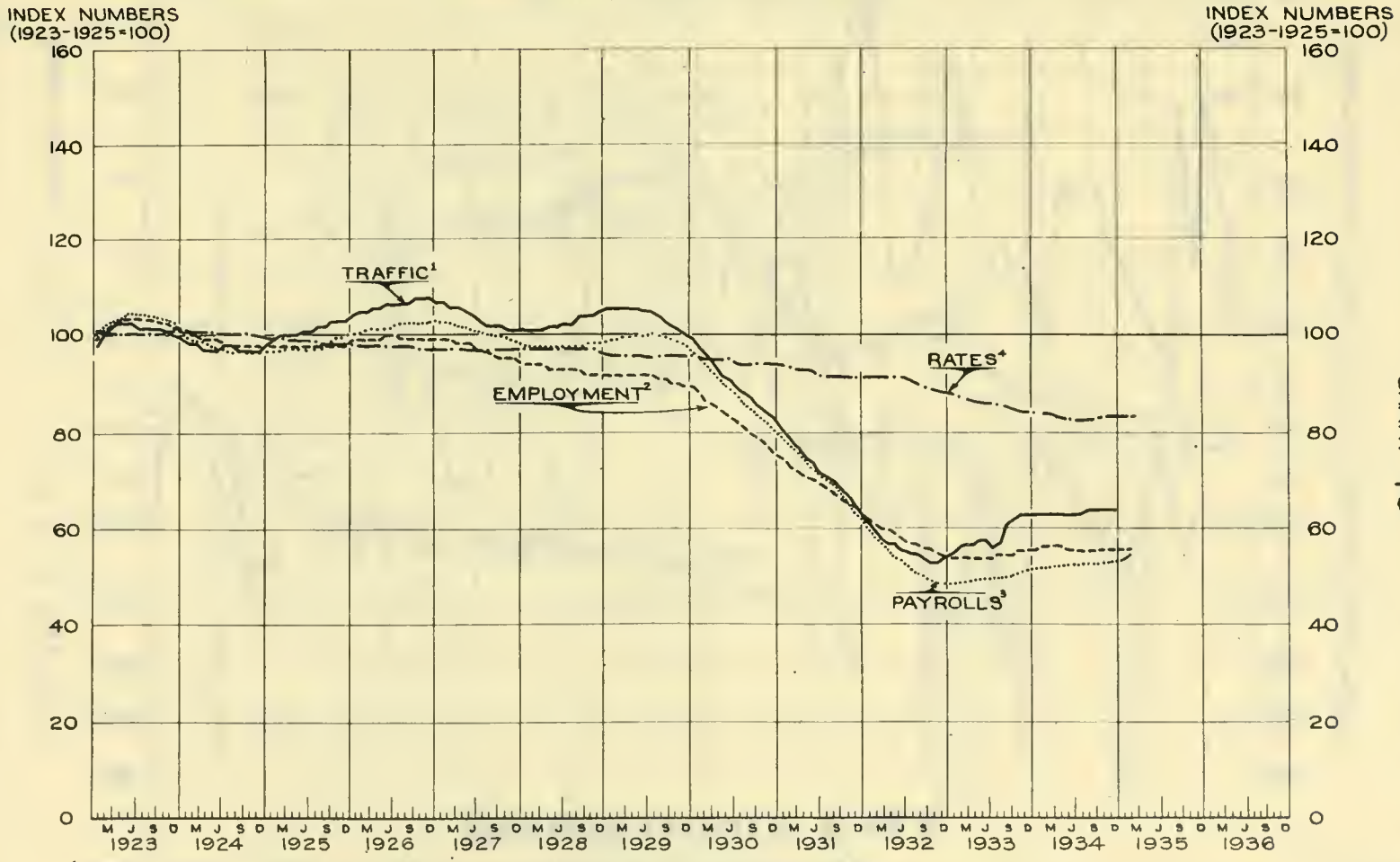
[1] BUREAU OF LABOR STATISTICS, WHOLESALE PRICES OF FINISHED AND SEMIMANUFACTURED GOODS COMBINED
[2] FEDERAL RESERVE BOARD INDEX (12 MONTH MOVING AVERAGE, CENTERED)
[3] BUREAU OF LABOR STATISTICS INDEX (12 MONTH MOVING AVERAGE, CENTERED)
[4] FEDERAL RESERVE BOARD INDEX (12 MONTH MOVING AVERAGE, CENTERED)

FOR MONTHLY DATA, SEE APPENDIX, TABLE V-A, B, C, AND D

NRA
DIVISION OF REVIEW
STATISTICS SECTION
No. 310

CHART 45

RAILWAY TRAFFIC, RATES, EMPLOYMENT, AND PAYROLLS
JANUARY, 1923 TO DATE



[1] INTERSTATE COMMERCE COMMISSION, CLASS I STEAM RAILWAYS, PASSENGER MILES AND TON-MILES COMBINED (12 MONTH MOVING AVERAGE, CENTERED)

[2] BASIC DATA FROM INTERSTATE COMMERCE COMMISSION (12 MONTH MOVING AVERAGE, CENTERED)

[3] BASIC DATA FROM INTERSTATE COMMERCE COMMISSION (12 MONTH MOVING AVERAGE, CENTERED)

[4] INTERSTATE COMMERCE COMMISSION, CLASS I STEAM RAILWAYS, PASSENGER AND FREIGHT RATES COMBINED (12 MONTH MOVING AVERAGE, CENTERED)

FOR MONTHLY DATA, SEE APPENDIX, TABLE VII-A, B, C, AND D

NRA
DIVISION OF REVIEW
STATISTICS SECTION
No 311

CHART 46

CHART 47

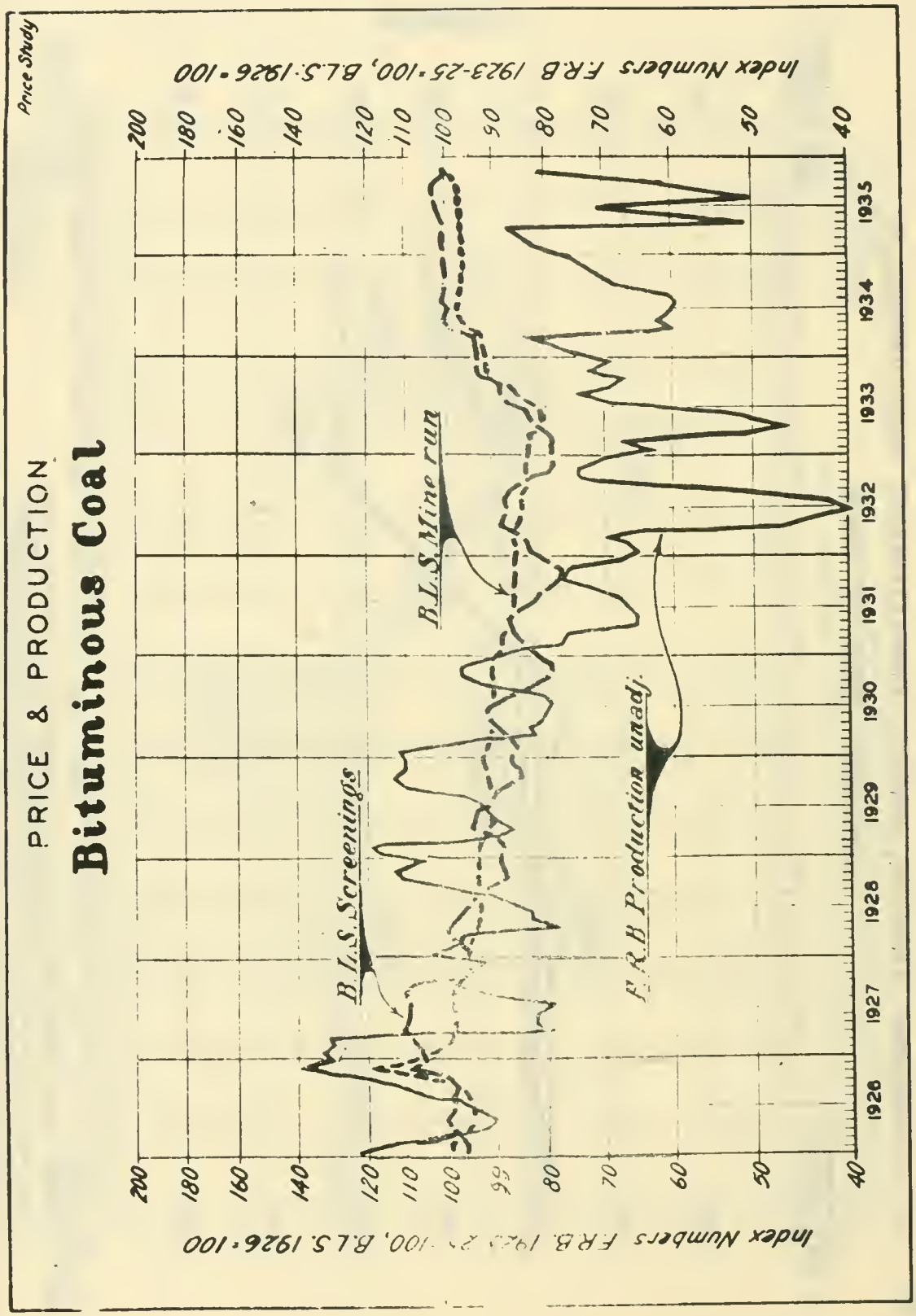
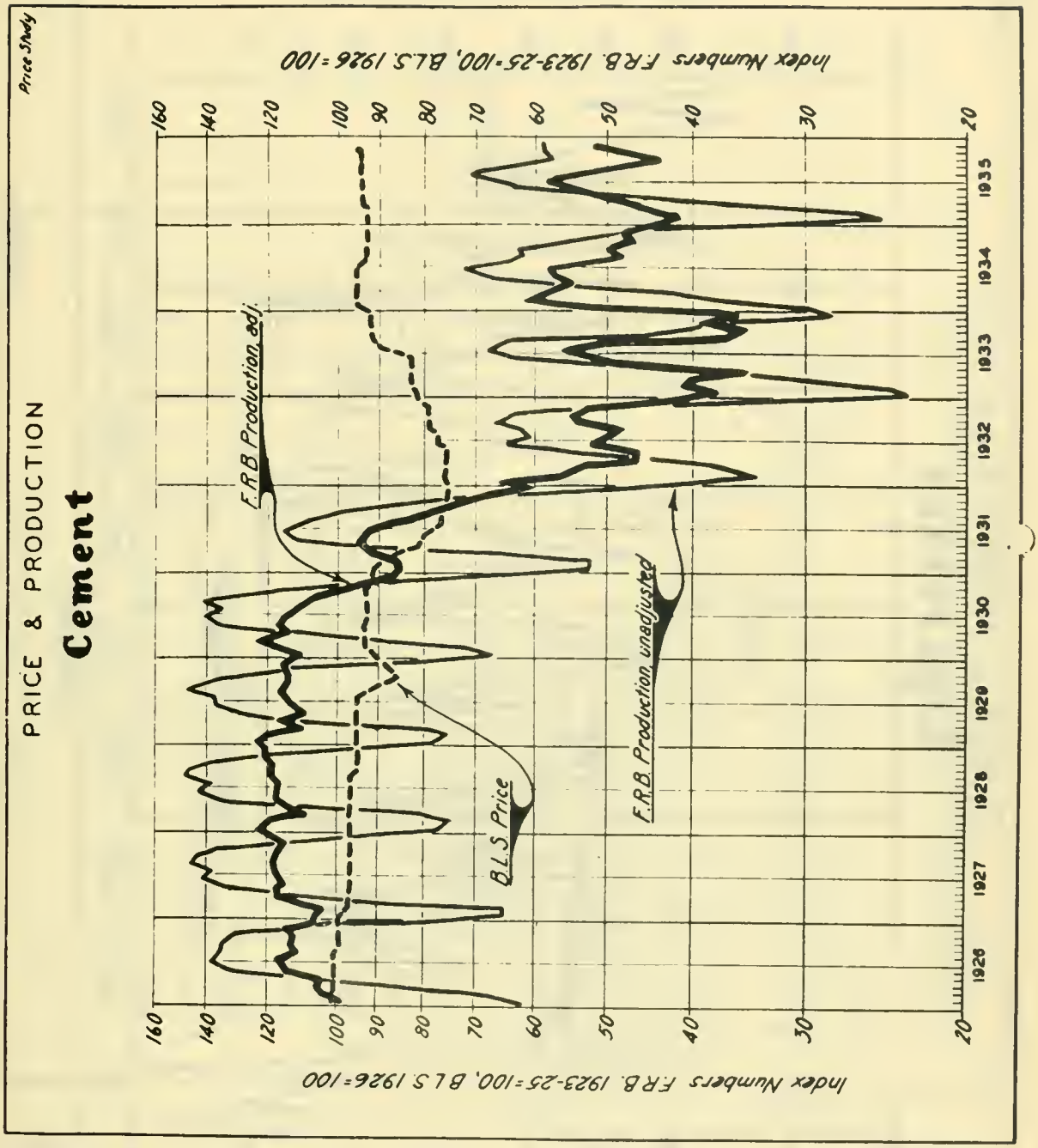

Price Study
PRICE & PRODUCTION
Bituminous Coal
Index Numbers F.R.B. 1923-25-100, B.L.S. 1926-100
B.L.S. Screenings
B.L.S. Mine run
F.R.B. Production unadj.
200
180
160
140
120
110
100
99
90
80
70
60
50
40
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935

CHART 48



9820

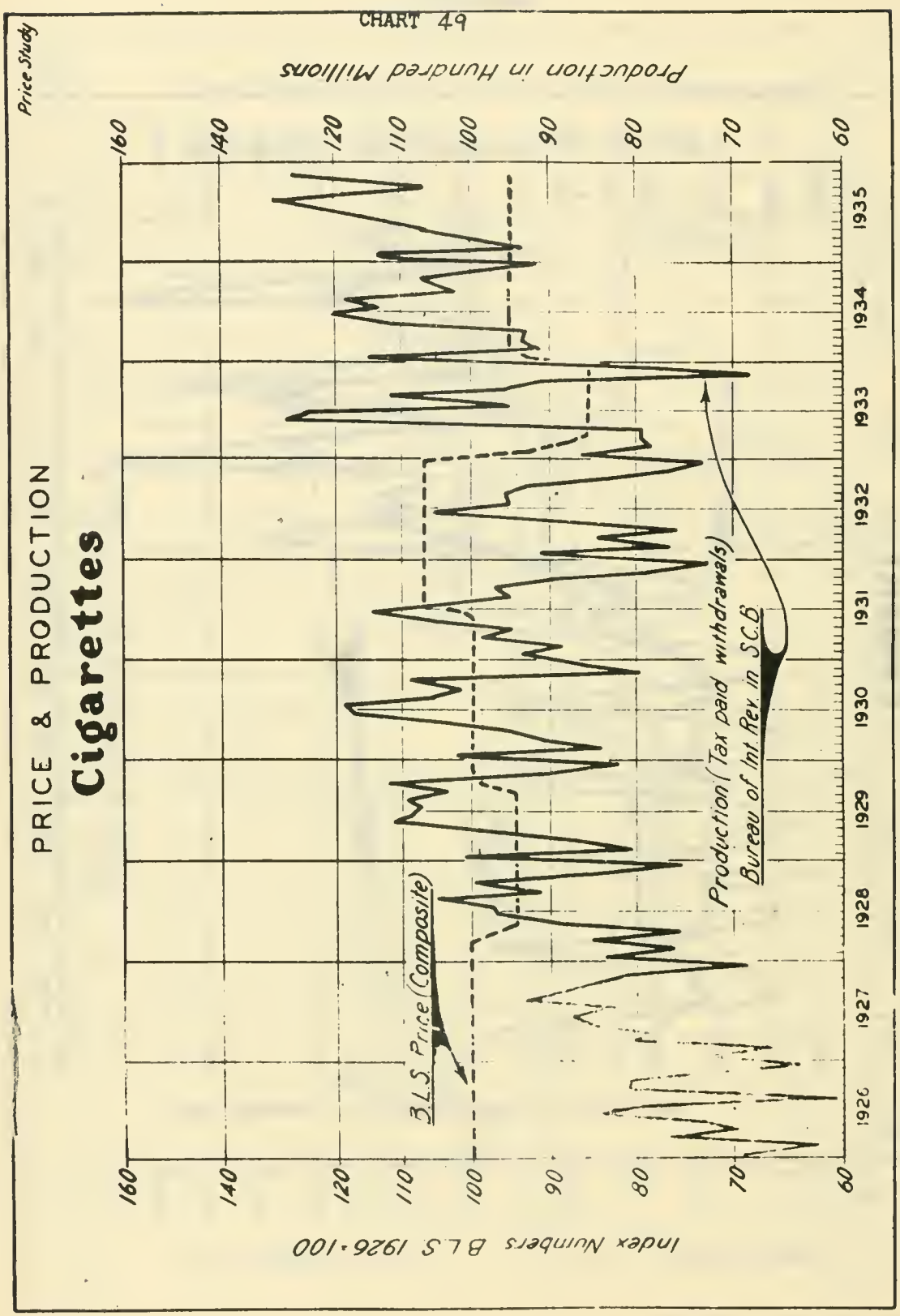
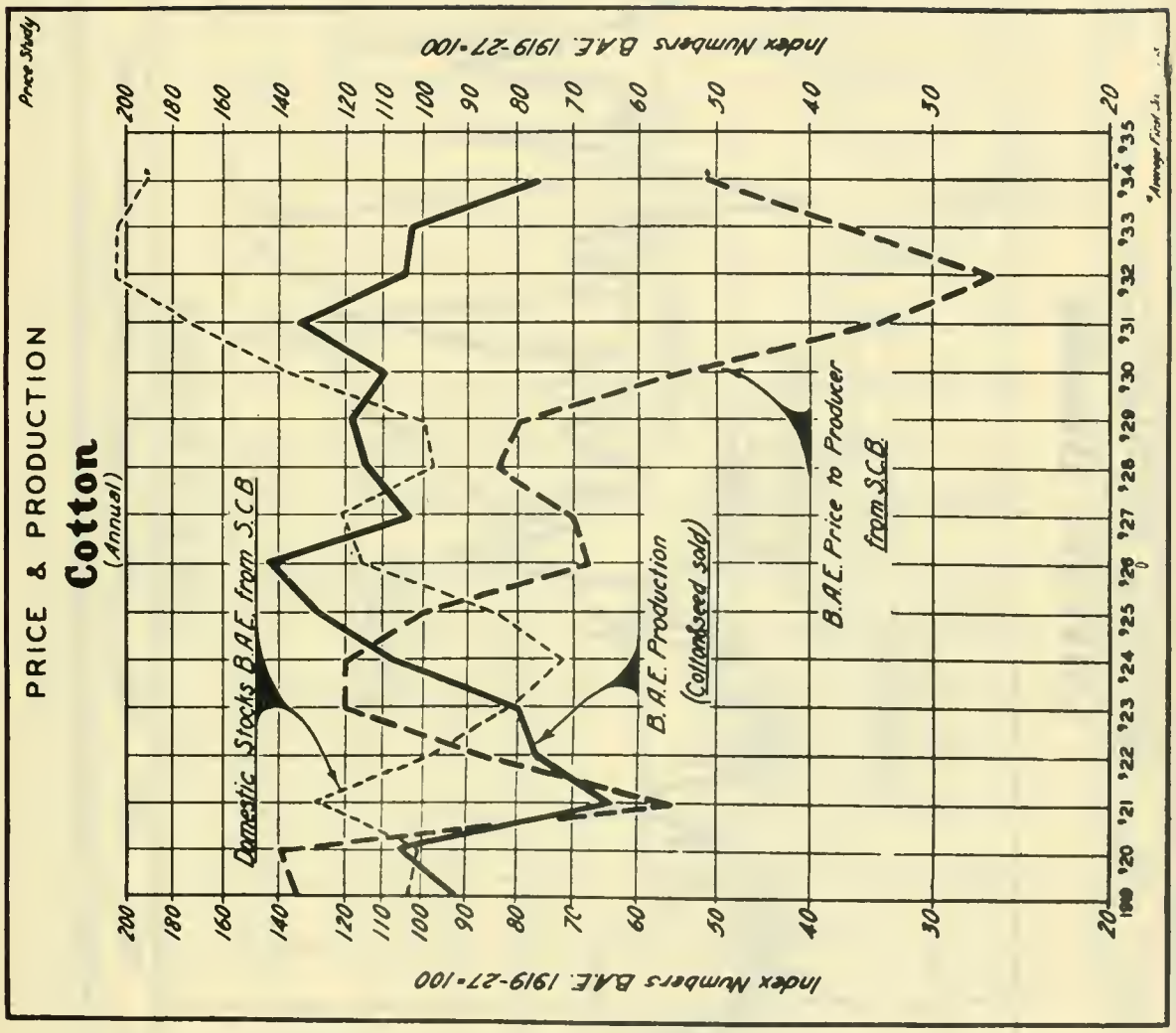

Price Study
CHART 49
PRICE & PRODUCTION
Cigarettes
Production in Hundred Millions
Index Numbers B.L.S. 1926-100
160
140
120
110
100
90
80
70
60
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
B.L.S. Price (Composite)
Production (Tax paid withdrawals)
Bureau of Int. Rev. in S.C.B.

CHART 50



9820

CHART 51

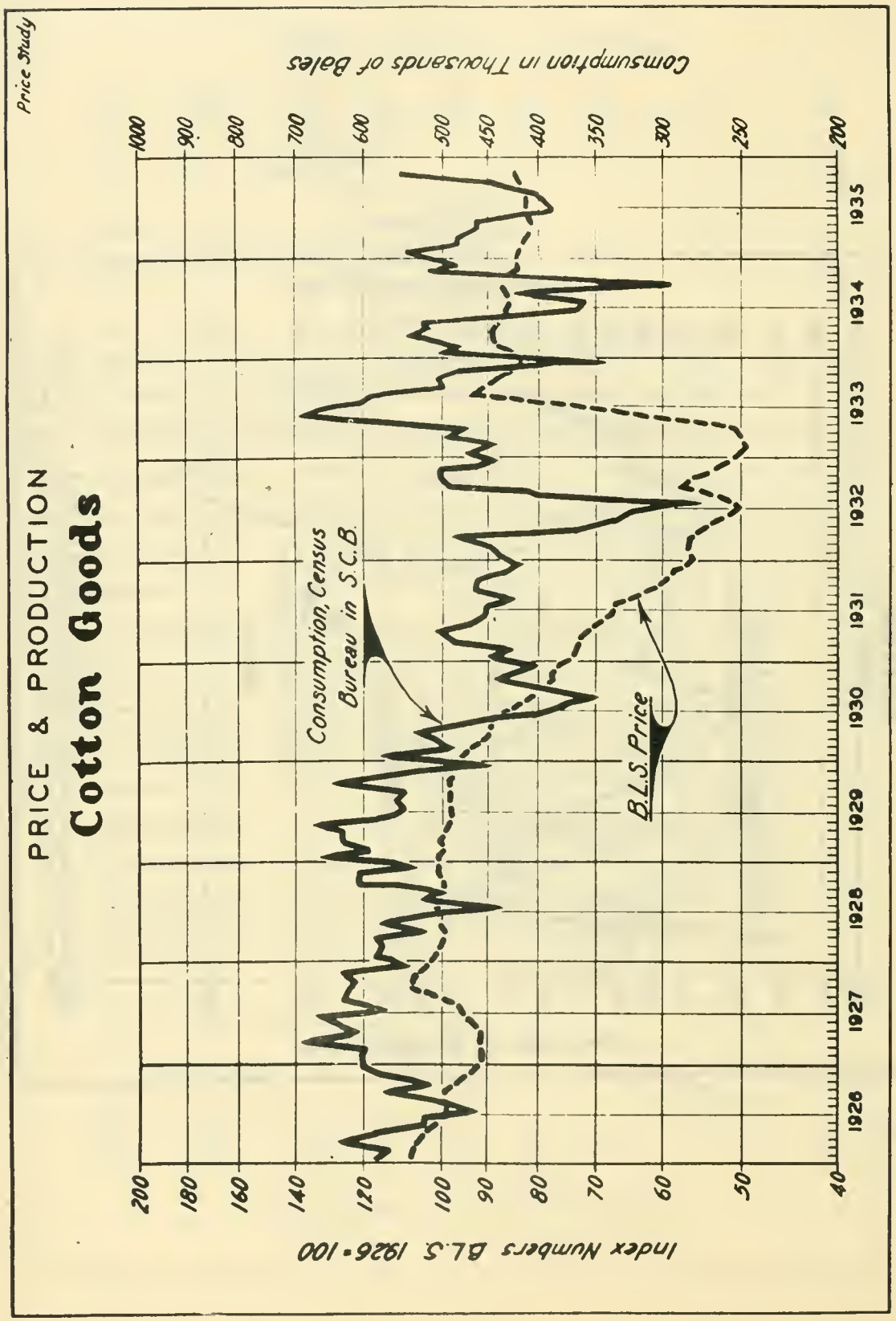

Price Study
PRICE & PRODUCTION
Cotton Goods
Consumption in Thousands of Bales
Index Numbers B.L.S. 1926-100
Consumption, Census Bureau in S.C.B.
B.L.S. Price
1000
900
800
700
600
500
450
400
350
300
250
200
200
180
160
140
120
100
90
80
70
60
50
40
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935

CHART 52

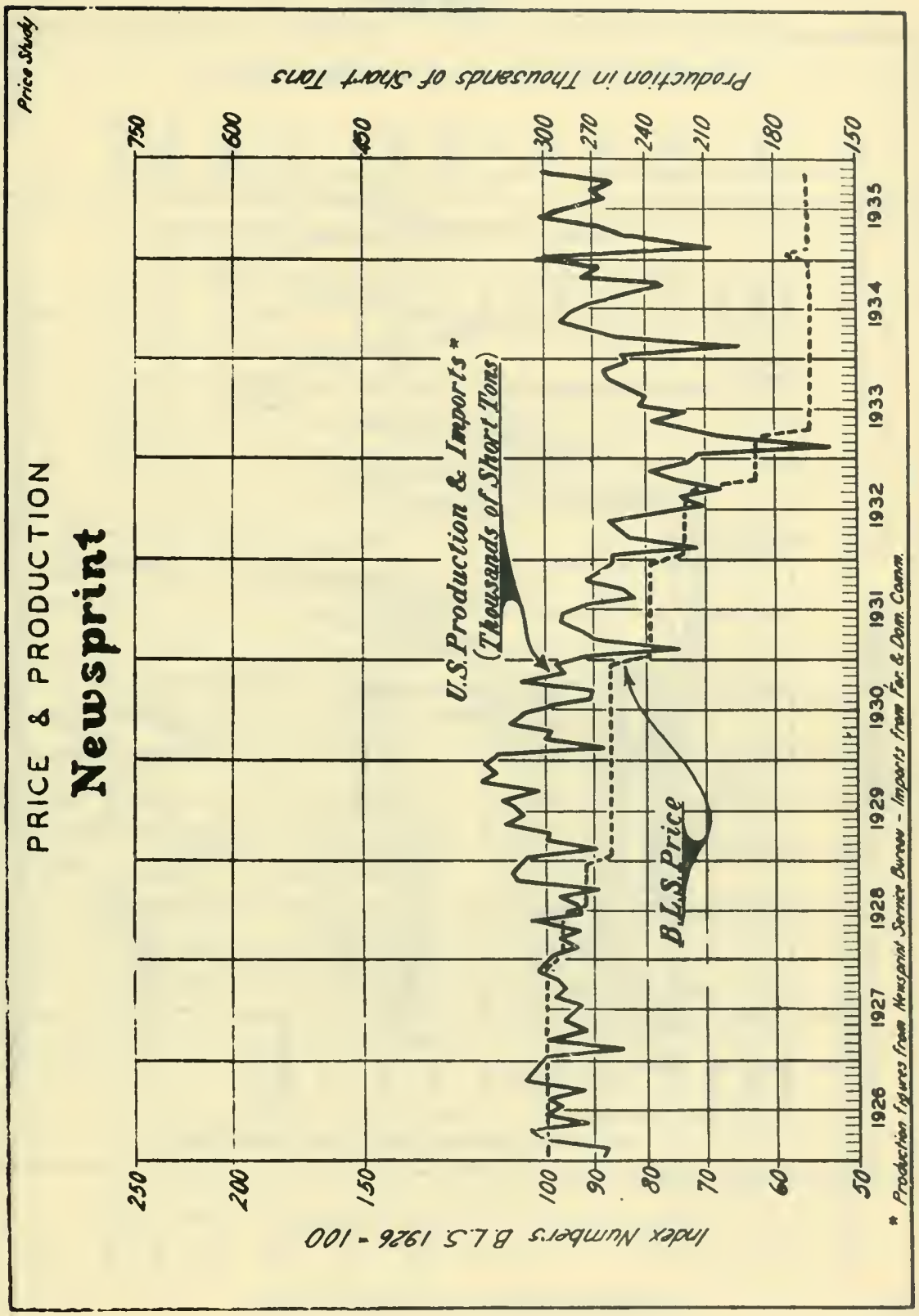

Price Study
PRICE & PRODUCTION
Newsprint
Production in Thousands of Short Tons
Index Numbers B.L.S. 1926 - 100
U.S. Production & Imports *
(Thousands of Short Tons)
B.L.S. Price
* Production figures from Newsprint Service Bureau - Imports from Fer. & Dom. Comm.
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935

CHART 53

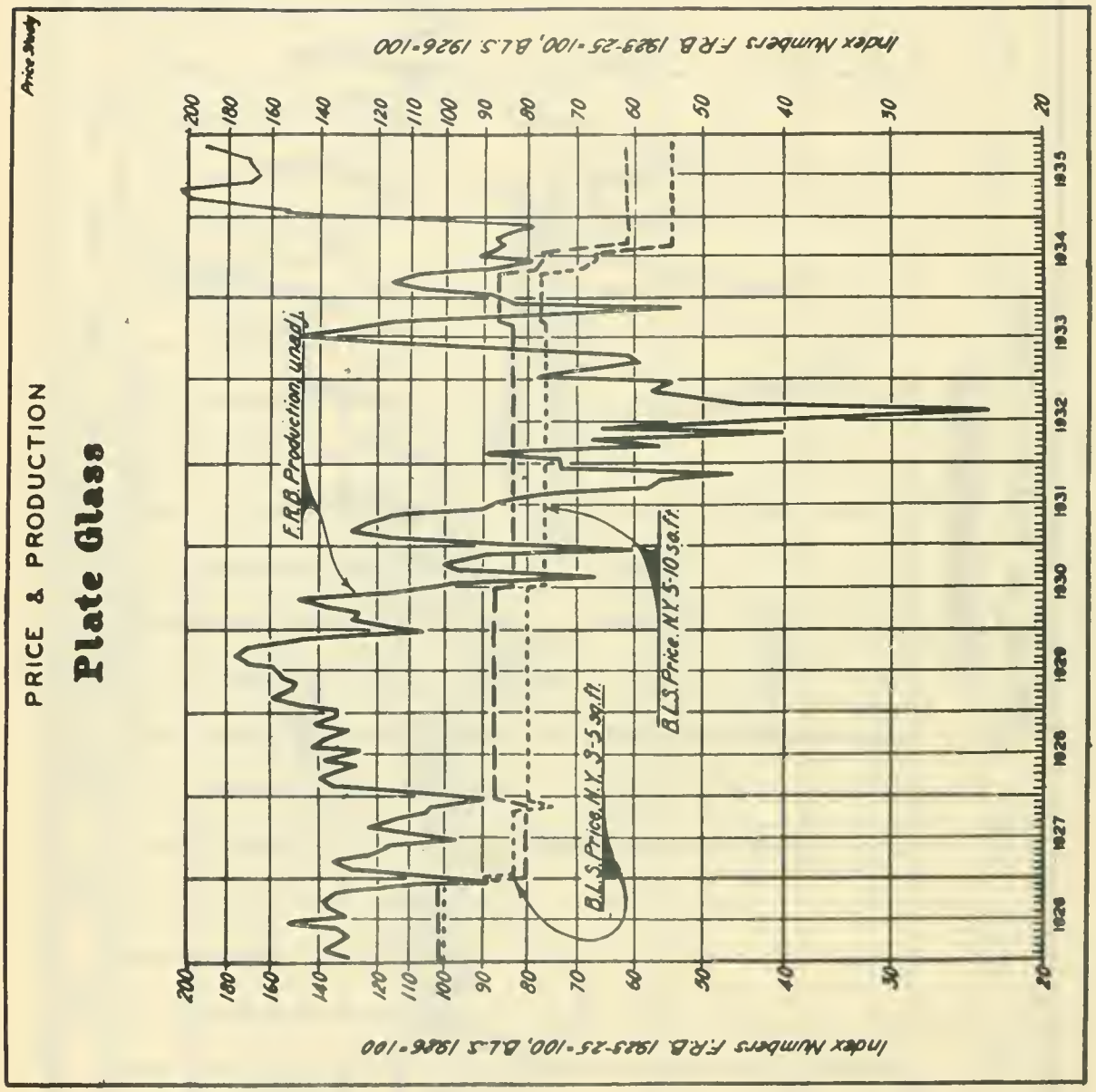

Price Study
PRICE & PRODUCTION
Plate Glass
Index Numbers F.R.B. 1923-25-100, B.L.S. 1926-100
F.R.B. Production unadj.
B.L.S. Price. N.Y. 3-5 sq. ft.
B.L.S. Price. N.Y. 5-10 sq. ft.
200
180
160
140
120
110
100
90
80
70
60
50
40
30
20
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935

CHART 54

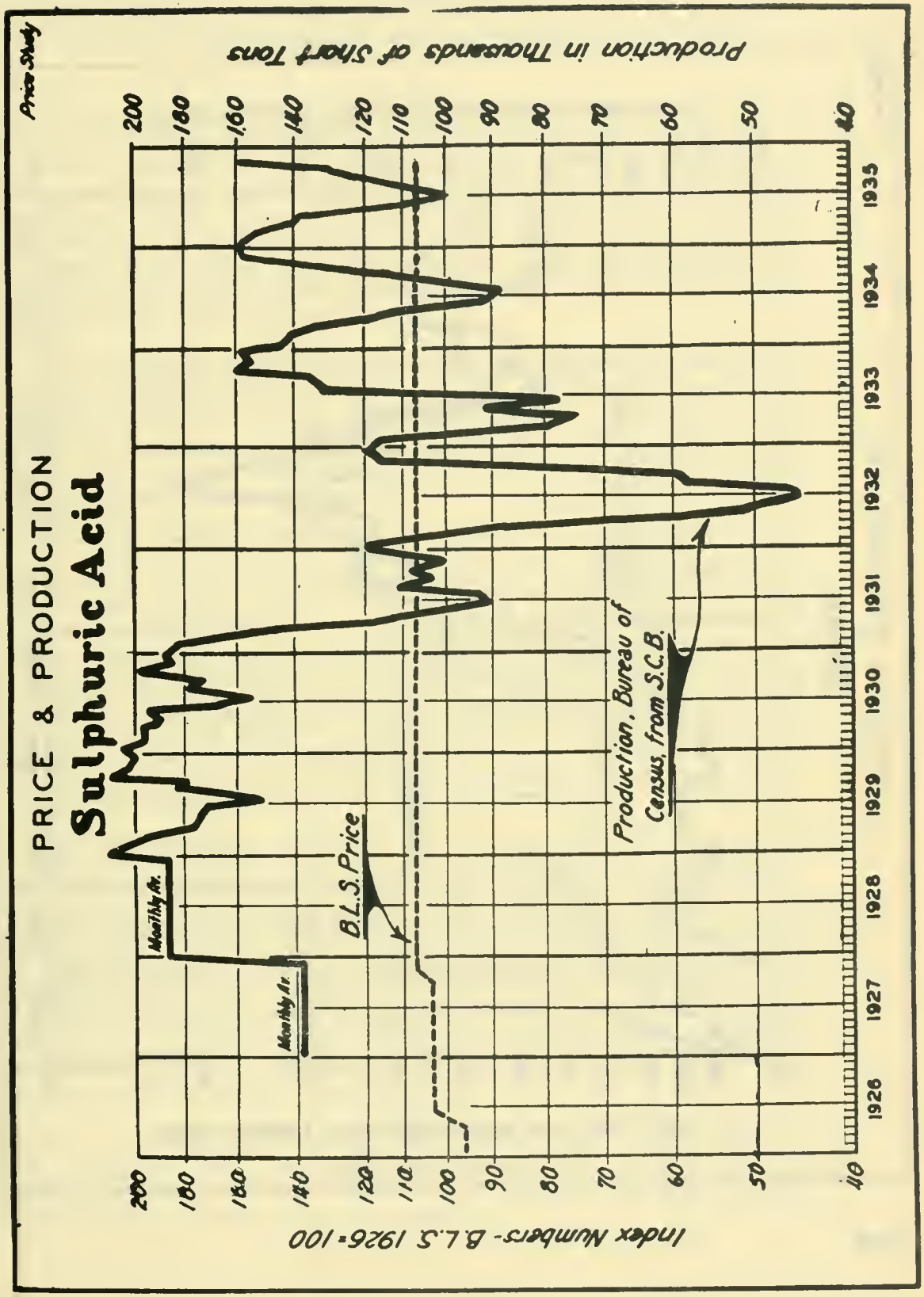
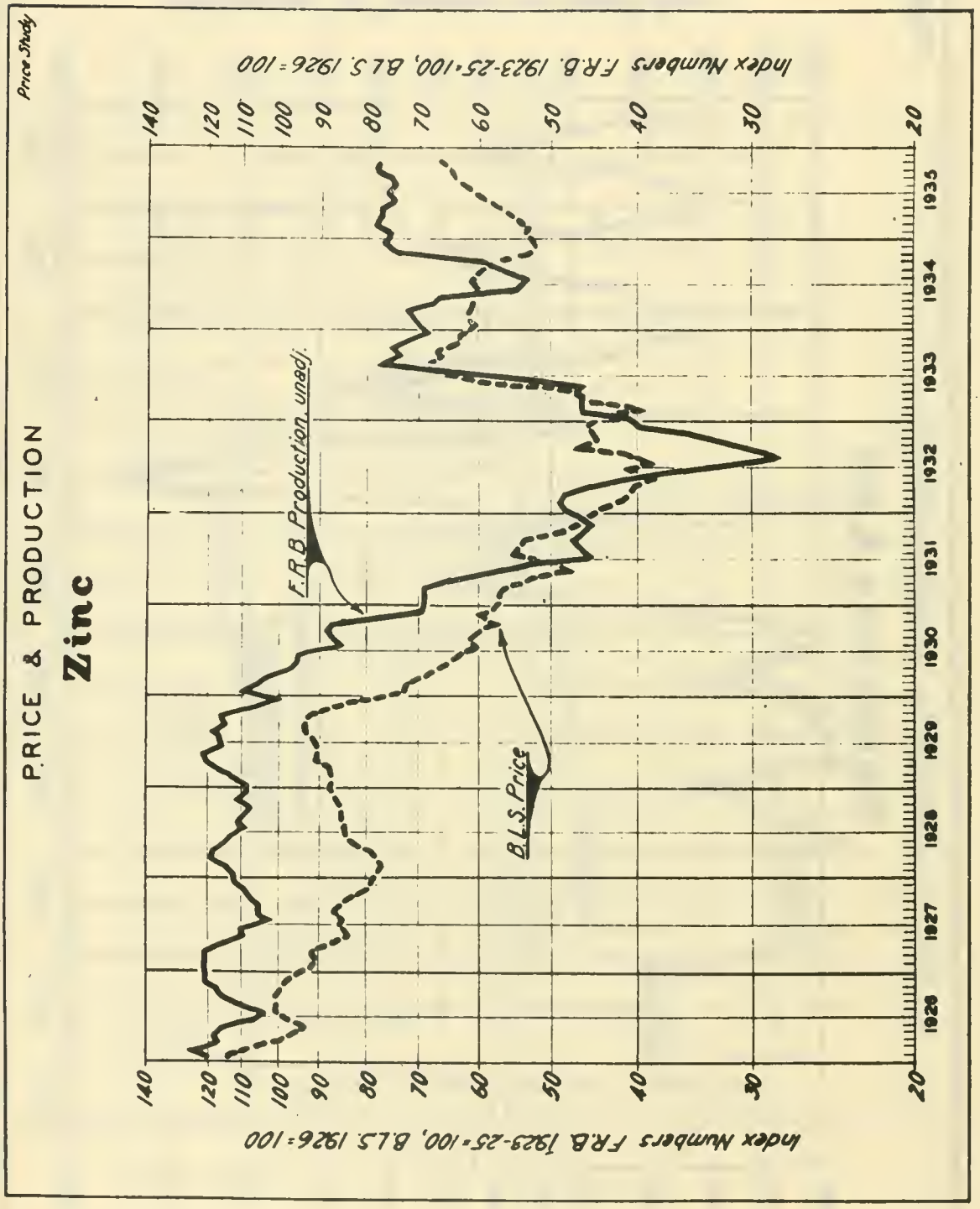

Price Study
PRICE & PRODUCTION
Sulphuric Acid
Production in Thousands of Short Tons
Index Numbers - B.L.S. 1926=100
200
180
160
140
120
110
100
90
80
70
60
50
40
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
Monthly Av.
Monthly Av.
B.L.S. Price
Production, Bureau of Census, from S.C.B.

CHART 55


Price Study
PRICE & PRODUCTION
Zinc
F.R.B. Production unadj.
B.L.S. Price
Index Numbers F.R.B. 1923-25=100, B.L.S. 1926=100
Index Numbers F.R.B. 1923-25=100, B.L.S. 1926=100
140
120
110
100
90
80
70
60
50
40
30
20
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935

E. THE PROBLEM OF PURCHASING POWER

Congress declared as a policy "to increase the consumption of industrial and agricultural products - by increasing purchasing power." An increase in purchasing power is a pre-requisite for recovery. What makes demand is desire plus money; demand equals want plus purchasing power.

Purchasing power is not a phrase of one meaning. A widely accepted meaning makes it equivalent to the current case incomes of consumers - what they receive currently in the form of wages, salaries, dividends and interest, and entrepreneurial profits, farm income being the largest single constituent of the last. A better definition would be, the power to buy consumers' goods and services. This varies directly as the income, and inversely as the price, both being of equal importance. Purchasing power in this sense can be taken away by a price rise as surely and as unavoidably as by a drop in income.

The best measure of the purchasing power of a group is therefore, the ratio of the dollar amount of its income in the form of wages, et cetera, during an interval, to the level of prices of the goods it normally purchases. According to this definition, purchasing power can be created by a fall in the cost of living, even though the dollar income remains unchanged, and purchasing power can be destroyed by a sharp inflationary rise in the cost of living.

The principal means selected by the NRA for increasing purchasing power of the laboring class were, the setting of minimum rates of pay, equitable adjustment of rates above the minimum, and decreased hours of work. It was recognized that raising wages would raise costs, but manufacturers were asked to delay price increases as long as possible, and then to increase them only by the amounts necessary to recoup the wage rise. The problem of the NRA was, to establish those minimum and above-the-minimum wage rates, which would bring about, or allow, the greatest increase in the total dollar volume of wage payments relative to the cost of living.

The most authoritative estimates of the cash incomes of the 40 to 50 million income recipients are those of the Bureau of Foreign and Domestic Commerce. These show a total of $78.6 billion in 1929, shrinking to $48.4 billion in 1932 and $44.9 billion in 1933. Total labor income went down from $51.5 billion to $30.9 and $29.4 billion in the same years. Percentagewise, this is about the same shrinkage as the total; both showed a 43% decline in 1933 compared to 1929. Total labor income held up as well as it did because of salaries of government employees. But wages in manufacturing, mining, construction and steam railroads, et cetera, the hard-hit areas, declined 58%.

Recovery in income paid out to individuals started to recover in the second quarter of 1933, but the starting point was so low that even with continued recovery the 1933 total did not equal 1932 (see tables). However, 1934 exceeded 1933 by a wide margin.

It is interesting to note that total labor income in 1934 was a larger proportion of the total than previously, and that wages in mining, manufacturing, et cetera were a materially larger fraction of the total than in 1932.

The tables also show total income paid out by each major industrial group.

The month-by-month course of wage payments in manufacturing, railroads and farming is shown in chart 56. All three fell about equally from 1929 to 1932. From the low point, factory payrolls have recovered more than half their loss, while farm and railroad payments have advanced scarcely at all.

Annual Incomes

What are the annual incomes of workers? These have been estimated on a rough basis for seventeen important industries, by multiplying average weekly wages as reported by the Bureau of Labor Statistics by 40 and 50. (See Table 25.) Thus in the automobile and automotive parts industry weekly wages in 1934 and 1935 were $22.97 and $26.56 respectively. On the basis of 40 weeks' work per year these figures indicate annual incomes of $919 and $1062 respectively, and on the basis of 50 weeks per year, $1148 and $1328 respectively.

In 1935, assuming 40 weeks' work on the average, annual incomes ranged from $513 for cotton textiles to $1205 for printing and publishing.

These, of course, are averages. Many employees receive substantially less. Thus in cotton textiles, South, August 1934, 22.9% of the males and 37% of the females received $8 or less. This was on a 30-hour week basis, during a curtailment. The code minimum was $10 a week, which amounts to $400 a year if the mills provide 40 full weeks of work.

COST OF LIVING

The other, and just as important element of purchasing power is the cost of living. The Index of the National Industrial Conference Board shown in Table 24 is the best one available on a monthly basis. In terms of 1929 equals 100 this fell to 69.0 in May, 1933, and has since risen to 79.0 in October, 1935.

DISTRIBUTION OF INCOME

The summary of findings of "America's Capacity to Consume," by The Brookings Institution, in reference to distribution of income in 1929 are reported as follows:

"Nearly six million families, or more than twenty one per cent of the total, had incomes less than $1,000.

"About twelve million families, or more than forty two per cent, had incomes less than $1500.

"Nearly twenty million families, or seventy one per cent, had incomes less than $2500.

"Only a little more than two million families, or eight per cent, had incomes in excess of $5,000.

"About 600,000 families, or twenty three per cent, had incomes in excess of $10,000" (Source, America's Capacity to Produce and America's Capacity to Consume, a digest, the Falk Foundation of Pittsburgh, Pa., p. 41).

TABLE 22

NATIONAL INCOME PAID OUT, BY TYPES OF PAYMENT (Millions of dollars

Item	1929	1930	1931	1932	1933	1934
Total income paid out	78,632	72,932	61,704	48,362	44,940	50,189
Total labor income	51,487	47,198	39,758	30,920	29,420	33,538
Salaries (selected industries)1/	5,664	5,548	4,606	3,387	3,048	3,250
Wages (selected industries)1/	17,197	14,251	10,608	7,017	7,189	8,944
Salaries and wages (all other industries)	27,690	26,409	23,461	19,417	17,591	19,046
Work relief wages 2/	.....	.....	.....	.....	619	1,389
Other labor income	937	990	1,083	1,099	973	899
Total dividends and interest 3/	11,218	11,302	9,764	7,980	6,969	7,227
Dividends	5,964	5,795	4,312	2,754	2,208	2,549
Interest	5,104	5,305	5,169	4,975	4,592	4,584
Entrepreneurial withdrawals	12,503	11,666	10,086	7,992	7,306	8,052
Net rents and royalties	3,424	2,766	2,096	1,470	1,245	1,382
	Percentages of 1929					
Total income paid out	100	92.8	78.5	61.5	57.2	63.8
Total labor income	100	91.7	77.2	60.1	57.1	65.1
Salaries (selected industries)1/	100	98.0	81.3	59.8	53.8	57.4
Wages (selected industries)1/	100	82.9	61.7	40.8	41.8	52.0
Salaries and wages (all other industries)	100	95.4	84.7	70.1	63.5	68.8
Work relief wages 2/	.....	.....	.....	.....	.....	.....
Other labor income	100	105.7	115.6	117.3	103.8	95.9
Total dividends and interest 3/	100	100.7	87.0	71.1	62.1	64.4
Dividends	100	97.2	72.3	46.2	37.0	42.7
Interest	100	103.9	101.3	97.5	90.0	89.5
Entrepreneurial withdrawals	100	93.3	80.7	63.9	58.4	64.4
Net rents and royalties	100	80.8	61.2	42.9	36.4	40.4

1/ Includes mining, manufacturing, construction, steam railroads, Pullman, railway express, and water transportation.

2/ Includes pay rolls and maintenance of Civilian Conservation Corps enrollees and pay rolls of Civil Works Administration and Federal Emergency Relief Administration work projects plus administrative pay rolls outside of Washington.

3/Includes also net balance of international flow of property incomes.

Source: The National Income Paid Out, Department of Commerce, 1935.

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TABLE 23

LABOR'S SHARE IN NATIONAL INCOME, 1929 - 1934
(millions of dollars)

Year	Total National Income	Labor Income		Payrolls in Mining, Manufacturing and Construction.	
		Amount	Percent of Total	Amount	Percent of Total
1929	78,632[a]	51,487[a]	65.5	17,197[a]	21.9
1930	72,932	47,198	64.7	14,251	19.5
1931	61,704	39,758	64.4	10,608	17.2
1932	48,362	30,920	63.9	7,017	14.5
1933	44,321	28,801	65.0	7,189	16.2
1934	48,800	32,139	65.9	8,944	18.3

Source: Bureau of Foreign and Domestic Commerce. See Table 22.

a/ Exclusive of emergency and relief income.

b/ "Wages in selected industries."

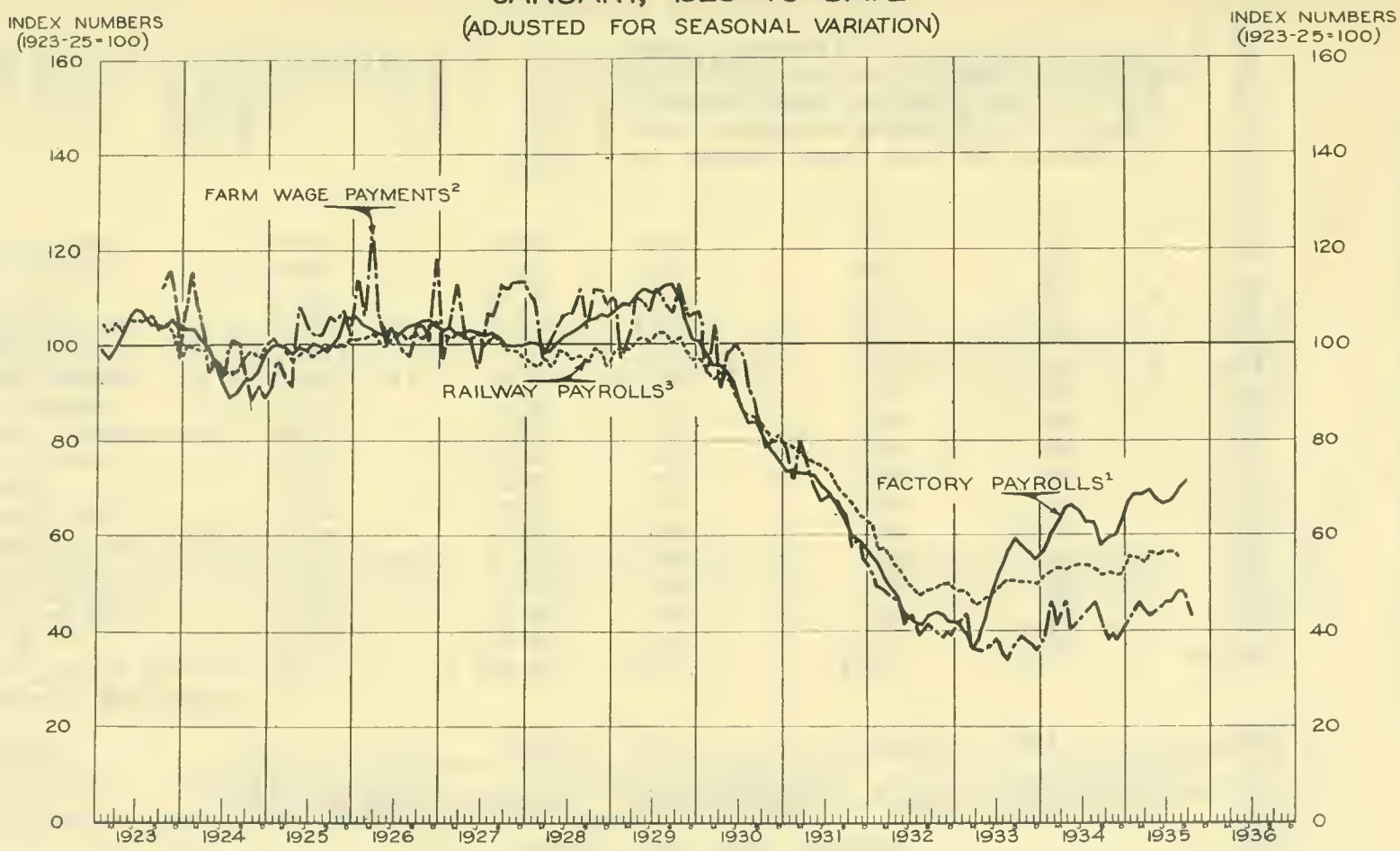
TABLE 24

NATIONAL INCOME PAID OUT, BY INDUSTRIAL DIVISIONS (Millions of dollars)

Item	1929	1930	1931	1932	1933	1934
Total income paid out	78,632	72,932	61,704	48,362	44,940	50,189
Agriculture	6,157	5,495	4,271	3,181	2,976	3,282
Mining	2,080	1,732	1,213	826	814	1,042
Electric light, power, and gas	1,304	1,475	1,408	1,275	1,094	1,085
Manufacturing	18,013	15,940	12,364	8,543	8,514	10,258
Construction	3,257	2,939	1,969	948	786	874
Transportation	6,847	6,327	5,362	4,266	3,909	4,216
Communication	914	947	894	801	726	749
Trade	10,852	10,296	9,027	7,074	6,132	6,691
Finance	8,334	7,469	6,428	5,130	4,274	4,454
Government, including work relief wages	6,805	7,043	7,189	7,148	7,330	8,381
Government, excluding work relief wages	6,805	7,043	7,189	7,148	6,741	6,992
Work relief wages					619	1,389
Service	9,271	8,767	7,673	6,056	5,462	6,150
Miscellaneous	4,798	4,502	3,906	3,114	2,893	3,007
	Percentages of 1929					
Total income paid out	100	92.8	78.5	61.5	57.2	63.8
Agriculture	100	89.2	69.4	51.7	48.3	53.3
Mining	100	83.2	58.3	39.7	39.1	50.1
Electric light, power, and gas	100	113.1	108.0	97.8	83.9	83.2
Manufacturing	100	88.5	68.6	47.4	47.3	56.9
Construction	100	90.2	60.5	29.1	24.1	26.8
Transportation	100	92.4	78.3	62.3	57.1	61.6
Communication	100	103.6	97.8	87.6	79.4	81.9
Trade	100	94.9	83.2	65.2	56.5	61.7
Finance	100	89.6	77.1	61.6	51.3	53.4
Government, including work relief wages	100	103.5	105.6	105.0	108.2	123.2
Government, excluding work relief wages	100	103.5	105.6	105.0	99.1	102.7
Work relief wages	-	-	-	-	-	-
Service	100	94.6	82.8	65.3	58.9	66.3
Miscellaneous	100	93.8	81.4	64.9	60.3	62.7

Source: See Table 22

FACTORY PAYROLLS, FARM WAGE PAYMENTS AND RAILWAY PAYROLLS
JANUARY, 1923 TO DATE
(ADJUSTED FOR SEASONAL VARIATION)



1- BUREAU OF LABOR STATISTICS INDEX
2- BASIC DATA FROM DEPARTMENT OF AGRICUTURE
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FOR MONTHLY DATA, SEE APPENDIX, TABLE IV-A, B, AND C

CHART 56

TABLE 25

-AVERAGE ANNUAL WAGE IN 17 SPECIFIED MANUFACTURING INDUSTRIES-
(As Estimated from Weekly Earnings)

INDUSTRY	AVERAGE WEEKLY EARNINGS		ANNUAL WAGE WITH A 40 WEEK YEAR		ANNUAL WAGE WITH A 50 WEEK YEAR	
	1934	1935(*)	1934	1935(*)	1934	1935(*)
Automobile and Automotive Parts & Equip't	$22.97	$26.56	$919	$1062	$1,148	$1,328
Baking	21.79	21.52	872	861	1,090	1,076
Boots and Shoes	17.22	18.24	689	730	861	912
Cotton Textiles	12.59	12.82	504	513	630	641
Electrical Mf'g.	20.16	21.82	806	873	1,008	1,091
Foundries & Mach.Shops	20.14	21.97	806	879	1,007	1,098
Furniture Mf'g.	15.42	16.54	617	662	771	827
Hosiery	16.11	17.02	644	681	806	851
Iron & Steel	19.12	22.37	765	895	956	1,118
Lumber & Timber Prods.	14.43	16.05	577	642	722	802
Meat Packing	21.96	22.62	878	905	1,098	1,131
Men's Clothing	17.80	19.66	712	786	890	983
Paper and Pulp	18.73	20.22	749	809	936	1,011
Printing & Pub.	29.25	30.13	1170	1205	1,462	1,506
Rubber Mf'g.	17.94	19.10	718	764	897	955
Silk Textiles	14.85	14.89	594	596	742	744
Wool Textiles	16.61	18.06	664	722	830	902

SOURCE: For average weekly earnings - Bureau of Labor Statistics excerpt for Foundries & Machine Shops Industries which were obtained from National Industrial Conference Board's letters

(*) Based on 9 months' average

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TABLE 25

Table 26

PER CAPITA WEEKLY WAGE IN ALL MANUFACTURING INDUSTRIES

Year and Month	Per Capita Weekly Wage a/	(1929 = 100) N.I.C.B. Cost of Living Index	Deflated Per Capita Weekly Wage
1932			
January	$ 19.89	83.8	23.74
February	20.01	82.8	24.16
March	19.81	82.3	24.07
April	18.90	81.1	23.30
May	18.69	79.9	23.39
June	17.97	78.7	22.83
July	17.32	77.9	22.23
August	16.93	77.4	21.87
September	17.03	76.6	22.23
October	17.48	75.7	23.09
November	17.08	74.7	22.86
December	16.99	73.4	23.15
1933			
January	16.68	72.2	23.10
February	16.53	71.1	23.25
March	15.75	70.2	22.44
April	16.32	69.6	23.45
May	17.40	69.0	25.22
June	17.99	68.9	26.11
July	18.04	68.7	26.26
August	18.93	68.7	27.55
September	18.67	69.1	27.02
October	18.81	68.7	27.38
November	18.02	68.3	26.38
December	18.03	68.3	26.40
1934			
January	18.07	68.2	26.50
February	19.08	68.3	27.94
March	19.48	68.6	28.40
April	19.96	69.2	28.84
May	19.81	69.8	28.38
June	19.51	70.2	27.79
July	18.62	70.3	26.49
August	18.89	71.1	26.57
September	18.57	71.7	25.90
October	18.89	72.2	26.16
November	18.86	72.4	26.05
December	19.73	72.6	27.18
1935			
January	19.98	72.7	27.48
February	20.93	73.3	28.55
March	21.09	73.8	28.58
April	21.17	74.7	28.34
May	20.78	75.7	27.45
June	20.54	76.0	27.03
July	20.12	76.6	26.27
August	20.85	77.7	26.83
September	21.14	78.4	26.96
October	21.64	79.0	27.39

Note: Per Capita Weekly Wages are not Comparable from One Month to the Other.

9820 a/ Bureau of Labor Statistics, Trend of Employment

TABLE 27

AVERAGE WEEKLY EARNINGS IN SUNDRY N. R. A. INDUSTRIES

Industry	June,1933	June,1934	Oct.,1934	Oct.,1935
Agricultural Implements	$16.99	$19.88	$21.75	$24.00
Aluminum Manufactures	17.64	18.74	19.06	22.28
Automobiles	23.05	22.54	21.94	27.93
Baking	21.17	21.89	21.37	22.10
Bolts, Nuts, Washers and Rivets	18.17	19.61	15.41	22.38
Brick, Tile and Terra Cotta	12.00	14.70	14.64	17.50
Brass, Bronze, and Copper Products	19.04	20.74	19.59	24.22
Boots and Shoes	15.68	17.20	15.48	17.13
Cans (tin) and other tinware	19.97	19.96	18.36	21.08
Confectionery	12.46	14.95	16.14	16.17
Canning and Preserving	11.45	11.90	12.23	13.61
Carpets and Rugs	17.55	19.35	16.72	19.44
Cast Iron Pipe	12.85	14.41	14.27	15.49
Chemicals	23.86	24.01	24.03	25.23
Chewing and Smoking Tobacco, Snuff	13.43	13.70	13.26	14.94
Corsets and Allied Products	14.37	14.84	15.43	15.19
Cotton Goods	11.11	11.17	13.21	13.56
Electrical Machinery, Apparatus and Supplies	20.70	21.61	21.21	23.85
Fertilizers	12.29	12.89	12.46	12.95
Forgings, Iron and Steel	18.44	21.45	18.35	23.59
Furniture Manufacturing	13.46	15.43	16.51	19.35
Glass	18.97	18.42	18.83	21.86
Iron and Steel	18.33	23.86	16.30	24.15
Jewelry	17.55	18.18	20.09	22.67
Knit Goods	12.89	15.29	16.64	17.39
Leather	19.92	20.16	20.18	22.00
Locomotive	18.82	22.09	21.91	23.48
Lumber: Sawmills	12.07	14.62	14.74	18.68
Lumber: Millwork	14.36	15.19	16.01	19.52
Machine Tools	19.87	23.59	21.83	27.12
Marble, Granite, Slate and Other Products	18.81	21.39	20.32	23.13
Men's Clothing	12.72	15.73	16.90	18.56
Paints and Varnishes	22.59	22.13	21.55	24.16
Paper Boxes	17.59	18.08	18.19	20.19
Paper and Pulp	18.64	18.38	19.61	21.71
Petroleum Refining	27.57	26.43	27.18	28.32
Printing and Publishing: Book and Job	25.00	26.06	26.29	27.35
Printing and Publishing: Newspapers and Periodicals	31.00	32.49	32.97	33.41
Pottery	15.33	15.97	17.29	20.87

AVERAGE WEEKLY EARNINGS IN SELECTED N. R. A. INDUSTRIES (continued)

Industry	June,1933	June,1934	Oct.1934	Oct.,1935
Rayon and Allied Products	$17.05	$19.26	$18.79	$19.56
Rubber Goods, other than Boots and Shoes and Tires and Tubes	18.26	18.49	18.08	21.00
Rubber Tires and Inner Tubes	24.28	23.48	22.76	26.70
Shipbuilding	20.09	22.71	23.07	25.58
Shirts and Collars	10.39	12.76	13.24	13.32
Silk and Rayon	12.75	14.60	15.47	16.09
Silverware and Platedware	17.80	19.80	20.68	23.43
Soap	21.47	21.23	21.83	23.34
Structural and Ornamental Metal Work	15.24	20.23	19.92	21.80
Textile Machinery and Parts	20.95	20.90	20.37	23.16
Woolen Textiles	16.85	16.07	15.59	18.42
Women's Clothing	14.26	16.24	19.52	19.66
NON-MANUFACTURING				
Banks, Brokerage and Real Estate	32.97	31.94		
Bituminous Coal	12.45	18.54	18.80	24.19
Dyeing and Cleaning	17.12	18.39	18.11	18.60
Hotels (Cash Payments Only)	12.41	13.22	13.43	13.59
Laundries	14.70	15.30	14.89	15.56
Retail Trade	18.97	20.03	20.41	20.05
Wholesale Trade	25.60	26.38	26.49	27.07

Source: Bureau of Labor Statistics (Trend of Employment)

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TABLE 28.

COTTON TEXTILE MANUFACTURING INDUSTRY

DISTRIBUTION OF EMPLOYEES ACCORDING TO ACTUAL WEEKLY EARNINGS BEFORE AND DURING THE CODE

Weekly Earnings	NORTH MALE July, 1933	NORTH MALE Aug. 1934	NORTH FEMALE July, 1933	NORTH FEMALE Aug. 1934	SOUTH MALE July, 1933	SOUTH MALE Aug. 1934	SOUTH FEMALE July, 1933	SOUTH FEMALE Aug. 1934
	CUMULATIVE PERCENTAGES							
Under $8	14.1	8.2	24.0	14.4	30.3	22.9	57.0	37.7
" 10	20.7	15.2	41.4	28.4	47.9	47.8	78.2	68.9
" 12	34.4	27.8	66.1	48.1	64.3	62.8	91.5	83.8
" 14	48.1	46.1	80.9	70.9	77.0	79.5	96.9	94.5
" 16	61.0	59.6	92.0	84.8	85.5	87.9	98.6	97.7
" 17	67.8	65.5	95.3	89.6	88.9	90.7	99.2	98.4
" 18	72.5	70.8	96.7	92.9	91.2	92.5	99.5	98.9
" 20	79.8	80.2	98.5	96.3	95.1	95.8	99.7	99.3
" 22	84.7	86.1	99.2	98.4	97.1	97.1	99.8	99.7
" 24	89.5	90.5	99.7	99.4	98.2	98.2	99.9	99.8

Source: Based on Bureau of Labor Statistics Reports on Cotton Textiles Parts I, II, III, February 1935.

TABLE 29

COTTON TEXTILE INDUSTRY

DISTRIBUTION OF EMPLOYEES ACCORDING TO AVERAGE HOURLY EARNINGS AND HOURS PER WEEK, BEFORE AND AFTER THE CODE

AVERAGE HOURLY EARNINGS — CUMULATIVE PERCENTAGES			ACTUAL HOURS WORKED PER WEEK — CUMULATIVE PERCENTAGES		
Hourly Earnings in Cents	July, 1933 Per cent	Aug. 1934 Per cent	Actual Hours Worked Per Week	July, 1933 Per cent	Aug. 1934 Per cent
Under 10.0	2.5	0.0	Under 8	2.1	1.2
" 20.0	43.6	0.2	" 12	4.8	3.6
" 30.0	82.0	5.1	" 16	6.0	5.7
" 40.0	95.0	69.4	" 20	7.0	10.4
" 50.0	98.6	89.0	" 24	9.2	16.3
" 60.0	99.5	95.8	" 28	11.2	29.0
" 70.0	99.8	98.8	" 32	13.4	55.8
" 80.0	99.9	99.5	" 36	17.5	70.1
" 90.0	99.9	99.8	" 40	21.1	74.2
			" 44	27.0	98.2
			" 48	37.3	99.4
			" 52	50.9	99.6
			" 56	79.9	99.7
			" 60	85.6	99.8

SOURCE: Based on Bureau of Labor Statistics Cotton Textile Report, Parts I, II, III, February 1935.

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TABLE 30

Hourly and Weekly Earnings in the Boot and Shoe Industry

	Average Hours Worked Weekly, All Employees	Average Hourly Earnings			Average Weekly Earnings		
		All Employees	Males	Females	All Employees	Males	Females
1934							
January	36.0	$0.458	$0.534	$0.365	$16.50	$19.00	$13.35
February	38.6	.470	.542	.383	18.16	20.99	14.69
March	38.0	.483	.559	.388	18.36	21.52	14.52
April	36.4	.486	.557	.395	17.72	20.66	14.10
May	35.5	.491	.560	.403	17.46	20.25	13.96
June	33.6	.491	.564	.398	16.53	19.25	13.15
July	35.9	.491	.567	.398	17.67	20.51	14.19
August	35.5	.491	.566	.399	17.46	20.15	14.14
September	35.3	.495	.562	.406	16.47	19.10	13.13
October	30.8	.496	.559	.412	15.29	17.55	12.53
November	29.9	.489	.556	.397	14.64	16.96	11.39
December	33.4	.487	.554	.401	16.26	18.75	13.16
Average (1934)	34.7	$0.486	$0.557	$0.395	$16.90	$19.56	$13.55
1935							
January	35.6	$0.489	$0.562	$0.397	$17.43	$20.15	$14.07
February	37.5	.491	.563	.397	18.33	21.29	14.71
March	36.3	.493	.559	.409	18.14	20.93	14.72
April	35.2	.502	.575	.408	17.71	20.56	14.14
Average (4 months 1935)	36.3	$0.494	$0.566	$0.403	$17.91	$20.74	$14.42
Average (first 4 months, 1934)	37.2	$0.475	$0.548	$0.383	$17.72	$20.58	$14.10

NOTE: Based on Reports compiled by Bureau of the Census covering one week in each month.

Source: See Table 15.

F. THE PROBLEM OF INDUSTRIAL CONCENTRATION AND THE SMALL FIRMS PROBLEM

The National Recovery Administration began operations in an economy in which the large corporation had become the dominant form of economic enterprise, and at the close of a period in which the trend to large organizations had gone on at an accelerated pace. It was especially directed by Congress not to permit codes "designed to promote monopolies or to eliminate or oppress small enterprises."

Statistics on small firms are difficult to procure for the very reason that, being small, their fortunes go unrecorded. It is, however, possible to study large firms, and infer what happens to the small. The size range in business enterprises is very large.

Statistics of Income for 1931 and 1932 published distributions of corporations by size of assets, of which the following is an abstract.

	ALL GENERAL INDUSTRIAL CORPORATIONS FILING BALANCE SHEETS		CORPORATIONS REPORTING TOTAL ASSETS OF $50,000,000 OR MORE EACH			
	Number	Total Assets (Millions)	Number	Percent of Total Number	Total Assets (millions)	Percent of Total Assets
1931	256,739	$103,117	200	.078	$38,333	37.2
1932	270,053	97,130	171	.063	35,213	36.3

Qualifications necessary to mention are, (1) that the above takes no account of unconsolidated assets of subsidiary or controlled affiliated companies, where these have assets less than $50,000,000; (2) that not all corporations file balance sheets; but those that do not are in general small companies, so that the total asset comparison would not be be changed appreciably were all balance sheets available.

The ten largest general industrial corporations in terms of number of employees were (1929)

TEN LARGEST INDUSTRIAL CORPORATIONS IN TERMS OF NUMBER EMPLOYED IN 1929

Company	Number employed in 1929	Approximate Number of states in which establishments are operated
General Motors	238,286	14
United States Steel	224,980	12
Ford	over 100,000*	
General Electric	87,933	10
Bethlehem Steel	84,316	9

Company	Number employed in 1929	Approximate Number of states in which establishments are operated
Armour	60,000	24
Swift	58,000	16
Standard Oil of New Jersey	44,700	14
International Harvester	40,000	8
Goodyear	39,735	6
Total over	952,950	

* Exact figure is confidential.

Sources: General Motors)
United States Steel)- - Standard Corporation Records
General Electric) Records
Bethlehem Steel)
Ford - rough estimate
International Harvester - Estimate in "Fortune"
Armour)
Swift)- - Moody's Manual of Industrials
Standard Oil of New Jersey)
Goodyear)
Number of States compiled from Standard Corporation Records (Standard Statistics Co.).

The large corporation is a comparatively recent phenomenon. The following table shows the largest manufacturing firms as of various dates from 1800 to 1929:

INCREASE IN SIZE OF CONCERN

Date	Industry or companies	Size (number of employees)	Remarks
1800	Household industries[a]	"Household"	Often part-time employment of farmers.
1810	Iron furnaces[b]	20 (?)	Highest plausible average figure. Estimated.
1810	Bloomeries[b]	2 or 3	Average, estimated.
1811	Wool factory[c]	150	"Largest".
1815	Merino wool factory[d]	50	"One of the largest of this class."
1839-1860	Brady's Bend Iron Company[e]	538 laboring families	"Among the largest in America before the Civil War".

Date	Industry or companies	Size (number of employees)	Remarks
1929f/	United States Steel Corp.	224,930)	The two largest manufacturing corporations.
1929f/	General Motors Corp.	253,286)	

a/ Clark, Victor S., History of Manufactures in the United States, Vol. I, p. 438 ff.
b/ Rough estimates based on data given by Clark, ibid., p. 500.
c/ Ibid., p. 562.
d/ Ibid., p. 565.
e/ Ibid., p. 446.
f/ Standard Corporation Records, published by the Standard Statistics Co.

Corporations have grown in size mostly by reinvestment of earnings, but also by mergers and acquisitions, particularly since the World War. The following data on mergers are taken from Recent Economic Changes, I, 186.

MERGERS AND ACQUISITIONS IN MANUFACTURING AND MINING

1919 - 1928

	Mergers Recorded	Concerns Merged	Concerns Acquired	Net Concerns Disappearing
1919	89	293	235	438
1920	173	474	459	760
1921	89	373	203	487
1922	67	220	156	309
1923	67	218	160	311
1924	95	263	200	368
1925	121	337	342	554
1926	139	597	398	856
1927	207	678	399	870
1928	221	687	572	1038

Profits of the large corporations have apparently grown more rapidly than the earnings of small corporations. Table 29 presents profits of general industrial corporations from Statistics of Income, comprising the following groups:

Agriculture
Mining
Manufacturing
Construction
Trade
Service
Miscellaneous

The next column shows the net income of 657 industrial corporations, to which is added changes in net worth of the Ford Motor Company (the only available indication of its profits) in the third column. This gives

approximately, profits of 658 large companies (column 4), which may be compared with the profits of the approximately 300,000 general industrial corporation. These 658 companies earned 41.4% of the profits of the entire group in 1926 and 47.7% in 1929 - almost as much as all the others put together.

A similar comparison is worked out using profits of 165 industrial corporations compiled by the Federal Reserve Bank of New York, to which the changes in net worth of the Ford Motor Company have been added. This groups had 17% of the profits of all general industrial corporations in 192[illegible] and 27% in 1929.

Although the above trends are very clear-cut, the ratios may not be quite correct, because the 658 corporations may represent certain industrial groups more heavily than others, and because tax returns may not be identical with published income statements.

The same trend is shown by comparison of asset items. Table 32 presents a comparison of the total assets of 418 industrial corporations with total assets of all general industrial corporations filing balance sheets with the Bureau of Internal Revenue. It also shows data on the cash assets and working capital of these 418 industrial coporations compared with those of all general industrial corporations.

As mentioned before, direct statistics on small firms are very few; and those that are available do not appear to throw any light on N.R.A. problems.

What is a small firm? Is the number of employees a satisfactory index? Two hundred employees would represent a very small rayon establishment, where the average establishement employed 1,348 in 1929. But in the paint and varnish industry over 40% of the establishments had five employees or less, and there were no establishments with over 100 employees. Table 34 gives some idea of the extreme variations existing, and the difficulty of drawing a dividing line between small and large.

Classification of commercial failures by size of liability proved useless. The published figures include only those where petitions in bankruptcy were filed and do not even hint at the multitude of small firms that were liquidated without loss to creditors in the holocaust of 1930-31-32, or where creditors failed to institute legal proceedings; and in any event the size of liability to creditors may be a poor measure of size.

Are higher wages a burden on small firms because they normally pay lower rates than large? Table 36 presents 1933 data for a number of industries in which the smaller firms paid out in wages a smaller proportion of value added by manufacture than the large, and Table 37 presents data for other industries in which the reverse was true. Table 38 shows average monthly wages in 1933 for some industries in which the smaller paid higher average wages than the larger, and Table 39 gives average monthly wages for some industries where the reverse was true.

	PROFITS OF LARGE CORPORATIONS							PROFITS OF SMALL AND MEDIUM SIZED CORPORATIONS			
								Profits of all General Industrial Corporations			
	Compiled Net Profits less Income Tax of General Industrial Corporations	Net Income 657 Industrial Corporations	Same Plus Change in Net Worth of Ford Motor Co. (658 Cos).	Ratio to Col. a %	Net Income of 163 Industrial Corporations	Same plus Change in Net Worth of Ford Motor Co. (164 Cos).	Ratio to Col. A. %	Less profits of 658 companies	Ratio to Col. a %	Less profits of 164 companies	Ratio to Col. a %
	(2.										
1919	4820*	a/	b/			c/	d/				
1920	3063*										
1921	d-918*										
1922	3295										
1923	4428				671	753	17.0			3675	83.
1924	3432				618	718	20.9			2714	79.1
1925	4861				860	971	20.0			3890	80.
1926	4824	1919	1994	41.4	1036	1111	23.0	2830	58.7	3713	77.0
1927	3971	1872	1829	46.0	994	951	24.0	2142	54.0	3020	76.0
1928	5134	2207	2135	41.6	1229	1160	22.6	2999	58.4	3974	77.4
1929	5619	2595	2677	47.7	1435	1517	27.0	2942	52.3	4102	73.0
1930	1388	1528	1572	113.	861	905	65.2	d-184		483	34.8
1931	d-1400	715	661		380	326		d-2061		d-1726	
1932	d-2793	25	d-50		30	d-105		d-2743		d-2898	
1933	d- 77	568	564		260	256		d- 631		d- 333	
1934		844	848		386	390					

Unit: $1,000,000
* Statutory profits
Source: Statistics of Income, Bureau of Internal Revenue

a/Compiled net profits less income tax of approximately 300,000 corporations, other than transportation and other public utilities, finance and service. This item is most nearly comparable to net income of "industrial" corporations.
b/Standard Trade and Securities Service, May 17, 1935, p. 346.
c/Survey of Current Business.
d/d Change in net worth of Ford Motor Company used in lieu of profits, which are not made public. Source, Moody's.

Note: The tabulations of Standard Statistics and the Federal Reserve Bank of New York are compiled from published income statements of large (but not necessarily the largest in every case) corporations.

TABLE 32.
ASSETS OF INDUSTRIAL CORPORATIONS
(millions of dollars)

Year	1927	1928	1929	1930	1931	1932	1933
			General Industrial Corporations (*)				
Total Assets	102,448	104,289	109,442	105,970	96,562	88,703	86,254
Current Assets	43,150	45,259	46,007	41,432	35,061	31,415	31,436
Cash and Equivalent	8,160	8,762	8,453	8,176	7,254	7,311	7,093
Inventory	18,736	18,898	19,680	17,095	13,804	11,362	12,578
Current Liabilities	14,474	15,200	15,396	14,121	11,917	10,572	10,785
Working Capital	28,676	30,059	30,611	27,311	23,144	20,843	20,651
			418 Industrial Corporations (**)				
Total Assets	27,998	29,778	32,218	32,261	30,520	28,267	27,837
Current Assets	10,581	11,679	12,449	11,563	10,118	8,823	9,030
Cash and Equivalent	3,078	3,731	3,618	3,608	3,544	3,326	3,160
Inventory	5,033	5,219	5,834	5,345	4,475	3,814	4,193
Current Liabilities	2,113	2,387	2,589	2,051	1,537	1,328	1,550
Working Capital	8,464	9,292	9,860	9,512	8,581	7,495	7,480
			Assets of 418 Industrial Corporations as Per Cent of Assets of General Industrial Corporations				
Total Assets	27.3	28.6	29.4	30.4	31.6	31.9	32.3
Cash and Equivalent	37.7	42.6	42.8	44.1	48.8	45.5	44.6
Working Capital	29.5	30.9	32.2	34.8	37.1	36.0	36.2

(*) Source: Statistics of Income, U. S. Treasury, Bureau of Internal Revenue, for the respective years. Data is for all corporations excluding transportation and other public utilities, Service and Finance.

(**) Source: 1934 Standard Earnings Bulletin, Standard Corporation Records, July 13, 1934, page 2.

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TABLE 33

ASSETS OF INDUSTRIAL CORPORATIONS
(Continued)

(millions of dollars)

91 Leading Industrial Corporations 1/

	1928	1929	1932	1933
Total Assets	18,602	20,098	18,946	18,798
Total Current Assets	6,883	7,525	5,723	5,851
Cash & Equivalent	2,333	2,363	2,411	2,302
Inventory	3,038	3,470	2,283	2,543
Working Capital	5,431	5,941	4,776	4,782

Assets of Above as Per Cent of
Assets of All General Industrial Corporations

Total Assets	17.8	18.3	21.4	21.8
Total Current Assets	15.2	16.3	18.2	16.6
Cash & Equivalent	26.6	28.0	33.0	32.4
Inventory	16.1	17.6	20.1	20.2
Working Capital	18.0	19.4	22.9	23.1

1/ The largest one or two companies in each principal industry group, as classified by Standard Statistics. See "Composite of Financial Statements", Aug. 16, 1935, Standard Earnings Bulletin, July, 1934. Thus in Steel group U. S. Steel and Bethlehem were included; in Electrical Equipment, General Electric and Westinghouse, and so on.

TABLE 34

PERCENTAGE OF TOTAL ESTABLISHMENTS AND PERCENTAGE OF TOTAL EMPLOYMENT IN VARIOUS SIZE GROUPS (NUMBER OF EMPLOYEES) FOR SELECTED INDUSTRIES

1933

	Av. No. of Empl.		0-5	6-20	21-50	51-100	101-500	500 + and over
Paint and Varnish	24	a	41.2	32.5	15.5	10.8		
		b	4.5	15.1	20.8	59.6		
Millinery	27	a	19.2	39.2	28.5	13.1		
		b	2.3	17.5	34.2	4.6		
Store & Office Furniture	44	a	23.4	34.5	19.2	12.1	10.8	
		b	1.6	9.3	14.4	19.9	54.8	
Men's Clothing Other Than Cotton	54	a	32.6	26.2	18.8	10.6	11.8	
		b	1.3	5.5	11.5	14.3	67.3	
Non-Ferrous Metal Alloys	55	a	38.2	35.5	11.5	6.3	8.4	
		b	1.9	7.1	6.7	8.1	76.3	
Agricult. Implements	66	a	27.7	32.9	15.3	11.2	12.9	
		b	1.2	4.2	7.9	12.1	73.6	
Work Clothing	99	a	9.9	17.6	21.3	21.7	29.6	
		b	.3	2.3	7.8	15.2	74.4	
Electrical Machinery	108	a	26.6	26.9	16.9	10.5	14.7	4.4
		b	.7	2.8	5.2	7.0	29.7	54.6
Boots and Shoes	168	a	7.5	14.7	19.0	15.6	43.2	
		b	.1	1.1	3.7	6.8	88.3	
Motor Vehicle Bodies and Parts	208	a	26.1	34.1	13.4	8.4	10.6	7.5
		b	.4	1.9	2.2	2.8	12.0	80.8
Iron and Steel	620	a	.4	5.4	11.4	15.2	39.7	27.9
		b		.1	.6	1.8	15.4	82.1
Motor Vehicle Mfg.	802	a	9.	17.2	17.2	4.1	20.5	35.
		b		.3	.7	.4	5.6	93.0

a - % of total establishments

b - % of total employees

Note: - The last right hand figure in each horizontal line inoludes total % for all firms above that bracket.

Source - Census of Mfgrs. - 1933.

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TABLE 35.

Number of Commercial Failures
Grouped According to Liabilities Involved.

Year	Total Number Reported	Number Under $5,000	Number Over $5,000	Number Under $25,000	Number Over $25,000	Number Under $100,000	Number Over $100,000
1928	23,842	10,079	13,763	19,887	3,955	23,153	689
1929	22,909	9,499	13,410	18,998	3,911	22,165	744
1930	26,355	10,133	16,222	21,578	4,777	25,398	957
1931	28,285	10,736	17,549	23,118	5,167	27,235	1,050
1932	31,822	11,162	20,660	25,483	6,339	30,197	1,625
1933	20,307	7,346	12,961	16,411	3,896	19,328	979
1934	12,185	4,652	7,533	10,087	2,098	11,573	612

SOURCE - DUN & BRADSTREET

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TABLE 36

Ratio of Wages to Value Added by Manufacture

(Percent)

1933

Industry	Size of Concerns (Employees)				
	1 - 5	6 - 20	21 - 50	51 - 100	Over 100
Agricultural Implements	28.4	35.5	39.1	43.7	58.6
Pottery	26.5	47.7	45.6	45.3	60.9
House Furnishings	24.4	27.6	35.1	38.4(over 50)	
Caskets	23.1	29.4	35.4	39.7 /a	
Fertilizer	18.6	21.5	25.9	33.8	
Finishing Goods	13.6	30.8	37.3	43.7 /a	
Shirts	6.7	19.1	46.2	48.2	53.2
Millinery	33.7	43.9	46.7	51.7(over 50)	
Woolen Goods	39.9	43.8	52.4	56.6	54.4
Wool Shoddy	10.9	28.8	40.2	27.7	
Men's Clothing (Cotton)	5.6	18.9	47.1	47.6(over 50)	
Women's Clothing	10.3	20.0	28.9	39.3	
Worsted	7.1	27.2	44.8	45.1	50.1
Men's Clothing(Than Cotton)	7.5	13.9	23.5	41.6	50.4
Hosiery	13.5	54.4	54.7	52.6	55.6
Aircraft	29.4	47.4	54.0	67.4	51.0
Leather	24.7	37.7	49.0	41.6	43.7
Rubber Goods	20.8	33.8	38.0	34.0	43.2

SOURCE - CENSUS OF MANUFACTURERS - 1933

/a included 1 establishment over 100 employees.

Source: Calculated from basic data of the Census of Manufactures for 1933, by Division of Review, Statistics Section.

TABLE 37

Ratio of Wages to Value
Added by Manufacture
Percent
1933

Industry	Size of Concerns (Employees)				
	1 - 5	6 - 20	21 - 50	51 - 100	Over 100
Tobacco & Snuff	25.5	22.2	23.4	21.4	11.7
Cigarettes	44.0		34.9		10.2
Patent Medicines	12.4	8.	7.3	6.2 /a	
Perfume & Cosmetics	19.7	14.3	11.5	13.2	4.5
Druggist's Preparations	19.1	15.3	14.9	12.0	11.4
Flour	31.3	33.8	18.7	13.3	
Biscuits	45.5	37.5	33.8	23.1	24.4
Ice Cream	19.9	20.1	17.1	13.7	
Flavoring Extracts	15.1	8.8	2.8	9.5	
Cereal Preparations	18.9	10.9	20.7	7.8	13.5
Feed	26.6	21.1	20.7	19.8	14.8

Source - CENSUS OF MANUFACTURERS - 1933.

/a included 1 establishment having over 100 employees.

Source: Calculated by Division of Review, Statistics Section, from basic data of Census of Manufacturers for 1933

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TABLE 38.

Average Monthly Wages Paid By Size of Establishment for Selected Industries - 1933. b/

Industry	Size of Concern (Employees) 1 - 5	6- 20	21 -50	51 - 100	Over 100
Pottery	$65.51	61.04	59.78	61.17	63.72
House Furnishings	68.42	58.50	53.95	53.86	
Caskets	85.90	77.23	74.86	84.54/a	
Finishing Goods	76.27	67.72	59.99	42.45/a	
Shirts	80.51	57.86	41.64	39.36	39.36
Millinery	84.40	82.61	78.00	69.37(Over 50)	
Wool Shoddy	68.20	71.06	69.59	65.73(Over 50)	
Men's Clothing (Cotton)	89.64	68.38	53.82	45.05(Over 50)	
Women's Clothing	96.61	90.23	82.74	56.08	
Worsted	82.39	66.63	58.70	66.80	67.01
Men's Clothing (Other than Cotton)	119.05	91.02	79.03	68.65	65.95
Rubber Goods	85.53	74.54	66.10	73.50	70.50
Tobacco and Snuff	64.55	66.19	52.49	55.25	58.35
Cigarettes	$90.29		$53.28		51.02
Patent Medicines	74.74	75.87	71.86	67.64/a	
Biscuits	70.60	64.16	58.70	69.53	52.22
Flavoring Extracts	84.98	76.75	79.67	78.07	

SOURCE - 1933 Census of Mfgrs.

/a Includes 1 establishment having over 100 employees.
b/ Calculated by dividing annual payroll by twelve, and then the average number of workers employed.

SOURCE: Calculated by Division of Review, Statistics Section, from basic data of the Census of Manufactures for 1933.

TABLE 39.

Average Monthly Wages Paid by
Size of Establishment For
Selected Industries - 1933

Industry	Size of Concerns (Employees)				
	1 - 5	6 - 20	21 - 50	51 - 100	Over 100
Agricultural Implements	$66.55	$62.79	$65.67	$54.47	$78.40
Fertilizer	43.20	41.09	42.16	51.44	
Woolen Goods	61.76	67.01	69.58	63.89	66.63
Hosiery	54.35	45.20	57.85	55.98	58.95
Aircraft	80.87	80.99	98.02	112.91	110.57
Leather	78.40	76.87	77.89	76.78	82.40
Perfume & Cosmetics	74.85	71.22	67.05	69.04	76.60
Druggist's Preparations	82.92	84.96	85.79	84.84	91.69
Flour	78.70	75.32	79.99	86.28	
Ice Cream	87.65	91.84	91.28	102.17	
Cereal Preparations	71.83	68.56	64.45	90.67	87.01
Feed	79.00	79.39	67.76	85.50	80.82

SOURCE: - 1933 Census of Manufacturers.

SOURCE: Calculated by Division of Review, Statistics Section, from basic data of the 1933 Census of Manufactures.

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II. THE WORK-SHARING OBJECTIVE

Pending recovery in production, considerable reemployment could take place by employing ".... more men to the existing work by reducing the work of each man's week."

Table 40 presents an estimate, based on certain assumptions, of the reemployment effected by work-sharing. Column 4 of the table presents an estimate of man-hours in manufacturing. There were some 398 million used per week in 1929, and 180 million per week in March, 1933. From mid-1933 to September, 1935, the number used averaged about 236 million, ranging from 207 to 262 million. Just before the N.R.A. went into effect, industry operated on a 42.5 hour week. If this work week had continued, and if the number of man-hours had been as in the fourth column, then the fifth column shows the number of men that would have been employed. This shows very little recovery. Not until 1935 does the number advance much above the panic levels of early 1933 and hold the gain. In September, 1935, with a demand for 262 million man-hours, a 42.5 hour average week would have employed only 6,164,000 compared with 7,004,000 actually at work. The difference, 840,000, represents the number at work who might have been unemployed were it not for work-sharing. The hypothetical reemployment due to the work-sharing program ranges up to 1,360,000.

This calculation is suggestive and arresting, but it cannot be stranger than the basis on which it was made, viz, that other factors would have been as they were. But no one knows whether they would or not. Would production have been greater or less, and demand for the services of labor have been greater or less without the work-sharing program? If greater, would it have been great enough to take up to a million off the lists of unemployed?

Although these remoter implications are not directly indicated by the statistics, the immediate fact remains that the work week was shortened substantially. Table 41 shows average hours worked per week in 17 important manufacturing industries. It will be noticed that in some industries hours dropped sharply in 1931 and 1932. These industries are chiefly durable goods industries, where volume fell unprecedentedly low and work-sharing was voluntarily adopted. The problem here was, not to have a cut in hours, but merely to aboid a return to the pre-depression work-week. In others, chiefly consumers' and non-durable goods industries, hours were not far below 1929 levels. Examples are boots and shoes, cotton textiles, hosiery, meat packing and paper and pulp. Hours in these industries dropped sharply when the codes were instituted in the summer and fall of 1933.

In general, industries do not succeed in operating at the code maximum. Thus the textile industries, which had a 40 hour maximum work week, rarely succeeded in averaging more than 36 hours' work for their employees. The averages are pulled down by individual firms and employees whose operations fall far short of the code maxima. The extent of this disparity in working times, with and without the codes is illustrated by frequency distributions of working time for the Lumber and Leather Industries (1932), Silk and Rayon (1933-34), and Woolen and Worsted (1932-33-34) Tables 42, 43, 44; also for the Cotton Textile Industry (1933-34) in the section on hourly wages. (Table 29)

TABLE 40

WEEKLY HOURS AND REEMPLOYMENT
IN ALL MANUFACTURING INDUSTRIES

		Industrial Production (Unadjusted) 1929 = 100	Average Weekly Hours	Actual Employment (000's)	Total Man Hours (000's) [a]	Hypothetical Employment if work-week had been 42.5 hrs. [b]	Hypothetical Reemployment Under W.P.A. (000's) [c]
1929		100	45.3	8,736	392,006		
1932		54	37.9	5,374	205,675	(Man-hours 42.5)	
1933	J	54	37.5	5,042	189,075		
	F	54	38.1	5,123	195,186		
	M	50	36.6	4,924	180,218		
	A	56	38.0	5,019	190,722		
	M	66	40.8	5,244	213,955		
	Jn	76	42.6	5,604	238,730	5,617	
	J	81	42.5	5,991	254,618	5,991	
	A	76	38.5	6,403	246,516	5,800	603
	S	71	36.2	6,702	242,612	5,709	993
	O	66	35.8	6,672	238,858	5,620	1,052
	N	61	34.4	6,385	219,644	5,168	1,217
	D	58	34.2	6,234	213,203	5,017	1,217
1934	J	65	33.7	6,146	207,120	4,873	1,273
	F	70	35.8	6,514	233,201	5,437	1,073
	M	73	36.3	6,770	245,751	5,782	988
	A	74	36.2	6,906	249,997	5,880	1,026
	M	75	35.4	6,913	244,720	5,758	1,155
	Jn	71	34.9	6,800	237,320	5,584	1,216
	J	61	33.4	6,594	220,240	5,182	1,412
	A	62	33.9	6,666	225,977	5,317	1,349
	S	61	33.4	6,352	212,157	4,992	1,360
	O	65	34.3	6,570	225,351	5,302	1,268
	N	62	34.1	6,435	219,474	5,163	1,272
	D	66	35.7	6,553	233,335	5,490	1,046
1935	J	74	35.2	6,596	232,179	5,463	1,133
	F	76	36.4	6,809	247,848	5,832	977
	M	78	36.6	6,906	252,760	5,947	959
	A	75	36.4	6,903	251,378	5,915	991
	M	75	35.3	6,796	243,297	5,725	1,071
	J	72	35.4	6,369	236,033	5,555	1,114
	Jn	70	35.3	6,365	235,274	5,536	1,129
	A	72	36.6	6,859	251,038	5,907	952
	S	75	37.4	7,004	261,950	6,164	840

Sources: Employment and Hours - U.S. Bureau of Labor Statistics
Industrial production - Federal Reserve Board

a) Employment x average weekly hours
b) And if all other factors remain the same, production efficiency, and so on
c) Actual employment less hypothetical emoloyment under 42.5 hours week.

TABLE 41

AVERAGE HOURS WORKED PER WEEK IN 17 SPECIFIED MANUFACTURING INDUSTRIES

Yearly Avg. or Month	Automobile and Automotive Parts and Equip't.	Baking	Boot and Shoe	Cotton Textiles	Electrical M'f'g.	Foundries and Machine Shops	Furniture Mfg.	Hosiery Ind.	Iron and Steel	Lumber and Timber Products	Meat Packing	Men's Clothing	Paper and Pulp	Printing and Publishing	Rubber Manufacturing	Silk Textiles	Wool Textiles
1929	43.3		44.3	47.9	49.2	49.4	46.8	47.6	49.5	46.4	50.8	37.8	52.1	45.9	44.8	48.0	41.6
1930	37.3		40.3	45.5	47.2	42.8	42.3	43.3	46.3	43.8	50.0		49.2	44.8	41.4	44.8	46.4
1931	34.0		43.8	44.6	42.5	35.9	39.7	42.3	35.0	39.8	49.0	37.3	44.2	42.5	37.9	44.2	41.8
1932	31.0	46.8	41.0	44.1	32.0	30.1	34.5	42.6	25.8	36.3	48.2	36.6	41.2	40.1	36.8	38.3	39.4
1933 J	35.8	46.4	38.6	45.2	29.8	30.3	30.4	40.6	25.3	33.6	46.4	37.1	38.6	39.0	39.2	39.8	45.2
F	31.2	46.9	41.0	45.2	31.8	29.9	34.3	44.6	26.9	33.9	45.2	41.8	40.2	38.8	41.3	40.3	46.7
M	29.0	45.6	39.4	43.9	28.5	27.4	30.7	41.3	24.6	34.1	42.3	40.8	39.8	38.6	37.6	36.9	37.3
A	35.2	46.6	37.4	45.1	32.4	29.1	33.0	42.0	28.5	36.7	45.6	39.9	40.6	38.0	39.5	37.1	41.2
M	41.0	46.8	41.2	47.9	35.4	32.7	36.9	45.7	32.7	40.4	47.8	34.5	43.4	39.0	37.9	39.6	46.4
J	40.4	46.7	45.8	49.2	38.6	37.0	39.7	47.2	37.9	43.0	48.2	39.7	46.8	39.2	42.9	42.2	48.3
J	38.1	47.2	49.7	49.0	37.6	39.9	41.9	45.1	40.0	44.2	49.3	43.0	46.1	39.3	44.9	41.8	49.0
A	37.8	43.0	41.1	36.5	35.4	36.0	39.3	37.6	39.6	42.6	40.3	33.9	44.4	37.8	39.3	36.7	41.2
S	33.3	41.5	39.2	36.0	33.4	34.7	37.7	36.0	33.7	36.8	40.0	33.5	39.9	36.7	36.3	35.8	37.1
O	32.5	40.9	36.9	35.2	34.3	34.4	38.0	37.2	33.4	34.6	39.7	31.1	38.7	36.6	36.9	35.1	34.9
N	30.6	40.0	34.8	34.6	33.3	33.0	34.9	35.9	29.0	34.4	39.9	25.8	36.5	36.0	35.0	33.8	32.8
D	30.4	40.8	32.7	33.5	31.8	33.2	33.0	33.8	30.0	33.3	40.2	23.3	35.3	36.8	36.5	31.7	34.3
Average 1933	34.6	44.4	39.8	41.8	33.5	33.1	35.8	40.6	31.8	37.3	43.7	35.4	40.9	38.0	38.9	37.6	41.2
1934 J	32.4	40.8	35.9	34.1	31.3	33.5	30.4	25.9	29.4	31.9	40.9	26.1	35.3	36.7	35.3	31.0	33.8
F	37.5	40.5	39.5	34.9	33.1	35.2	35.7	34.6	31.8	33.2	39.2	28.8	36.8	36.5	35.0	35.8	35.6
M	39.5	40.9	37.8	35.6	33.7	36.3	34.5	35.3	34.2	34.9	38.6	30.6	36.9	36.6	36.0	34.6	34.6
A	38.0	41.5	35.9	35.6	34.2	36.6	34.6	35.7	35.4	34.7	39.1	27.6	37.1	36.8	35.8	33.9	34.5
M	34.9	41.4	35.2	31.5	34.0	36.5	33.6	36.1	36.6	34.2	39.8	24.8	35.9	37.1	34.6	32.6	33.2
J	32.3	41.7	35.8	28.8	34.6	36.0	34.6	32.7	37.2	34.1	40.3	26.9	35.9	36.3	36.2	32.9	32.1
J	27.8	40.9	36.9	30.1	33.4	35.3	32.3	29.7	28.1	32.4	42.3	27.8	35.7	36.1	33.3	32.2	32.2
A	31.9	40.0	35.5	29.7	33.5	34.2	34.8	32.4	27.0	33.4	42.0	27.8	36.1	36.3	34.7	31.9	32.0
S	25.7	40.5	33.5	33.9	32.4	33.9	35.5	32.4	24.1	33.8	43.0	25.3	36.1	36.4	32.2	28.7	30.8
O	34.7	39.4	30.7	34.9	34.5	34.1	36.7	35.3	25.1	34.0	41.0	26.5	37.2	36.4	34.5	33.8	31.5
N	31.3	39.6	29.4	33.9	34.0	33.9	35.2	35.5	26.7	33.4	41.1	23.4	36.5	36.4	34.6	34.4	33.3
D	35.3	39.7	33.0	35.5	35.3	35.2	36.3	35.8	29.1	33.3	40.1	24.5	37.1	37.5	36.8	34.5	36.9
Average 1934	33.4	40.6	34.9	33.2	33.7	35.1	34.5	33.5	30.4	33.6	40.6	26.7	36.4	36.6	34.9	33.0	33.4
1935 J	35.6	40.3	35.9	35.2	34.4	35.9	35.1	34.7	32.7	31.7	39.2	25.8	37.7	37.1	37.6	34.4	36.9
F	39.7	40.1	37.4	35.6	34.8	36.9	37.4	35.6	35.7	34.1	38.7	29.9	38.5	37.2	36.4	34.6	37.0
M	39.6	39.0	36.7	35.1	35.7	36.9	38.0	36.1	35.2	36.7	38.7	33.4	38.9	37.3	36.9	34.6	36.2
A	40.2	39.9	34.3	33.3	35.6	37.1	38.0	34.2	35.7	36.4	39.9	33.0	38.1	37.1	36.3	33.9	35.5
M	37.1	40.2	33.5	33.4	35.8	36.8	36.9	32.4	34.2	33.8	40.0	26.7	38.1	37.2	36.0	32.9	36.2
J	34.4	40.5	35.1	32.1	35.1	36.3	37.7	30.0	32.4	37.5	40.0	27.6	38.5	36.9	35.2	32.9	37.2
J	33.6	40.7	37.2	32.4	34.9	37.1	36.7	28.6	32.7	37.2	40.7	28.3	37.2	36.5	35.3	33.7	36.7
A	33.2	39.7	37.7	33.2	36.9	37.3	40.5	34.1	34.9	39.5	40.2	30.7	38.2	36.8	36.9	35.9	36.6
S	34.2	41.4	34.9	35.1	38.4	39.1	42.0	35.8	36.0	40.3	40.8	32.4	39.7	37.0	38.3	35.5	36.7
O	37.5	41.2	34.2	36.4	41.5	39.9	43.0	37.2	36.5	41.4	41.5		40.8	37.3	39.7	36.6	37.6
Avg. 9 mo. 1935	36.8	40.2	35.8	33.9	35.7	37.0	38.0	33.3	34.4	36.4	39.8	29.8	38.3	37.0	36.5	34.3	36.6

Sources: The monthly data is from Bureau of Labor Statistics except for Foundries & Machine Shops which is from the National Industrial Conference Board's letters

The yearly data 1929-1932 are National Industrial Conference Board adjusted by N.R.A. to the B.L.S. data excepting for the following industries which are direct N.I.C.B. data: Hosiery, Rubber Mfg., Meat Packing. Foundries & Machine Shops and Wool Textiles.

TABLE 13

HOURLY EARNINGS AND HOURS PER WEEK
in the
LUMBER & LEATHER INDUSTRIES - 1932

C U M U L A T I V E F R E Q U E N C Y D I S T R I B U T I O N S

LEATHER

Hourly Earnings (cents)	Percent of Employees receiving less than indicated amounts
Less than 19	0.5%
" " 21	0.9
" " 23	1.8
" " 25	2.7
" " 30	11.1
" " 35	21.6
" " 40	32.0
" " 45	47.4
" " 50	59.1
" " 60	78.3
" " 70	92.7
" " 80	98.0
80 and over	100.0

Hours Worked Per Week	Percent of Employees working less than indicated time
Less than 16	3.3%
" " 24	7.2
" " 32	18.6
" " 40	36.3
" " 44	52.5
" " 48	68.0
" " 50	78.7
" " 54	92.3
54 and over	100.0

LUMBER

Hourly Earnings (cents)	Percent of Employees receiving less than indicated amounts
Less than 8	4.4%
" " 10	10.2
" " 12	19.5
" " 14	28.5
" " 16	37.0
" " 18	43.5
" " 20	47.6
" " 25	56.2
" " 30	67.1
" " 40	88.5
" " 50	94.5
" " 60	96.9
" " 70	98.6
70 and over	100.0

Hours Worked Per Week	Percent of Employees working less than indicated time
Less than 10	2.9%
" " 15	5.3
" " 20	9.2
" " 25	19.9
" " 30	25.9
" " 35	40.4
" " 40	48.9
" " 45	63.3
" " 50	76.3
" " 54	82.6
" " 60	90.4
60 even	96.4
Over 60	100.0

SOURCES: BLS Bulletins Nos. 589 & 586

9820

-SILK AND RAYON INDUSTRY-
DISTRIBUTION OF AVERAGE HOURLY EARNINGS AND HOURS PER WEEK, BEFORE AND DURING THE CODE

AVERAGE HOUELY EARNINGS

Percent of Wage Earners receiving indicated amounts

Hourly Earnings (cents)	April, 1933	August, 1933	August, 1934
Less than 12.5	4.1		
12.5 less than 17.5	15.5	4.8	.3
17.5 " " 22.5	21.2		
22.5 " " 27.5	22.0	3.0	1.2
27.5 " " 30.0	6.1	1.1	.3
30.0 " " 32.5	6.4	3.9	3.8
32.5 " " 35.0	4.7	27.9	25.2
35.0 " " 40.0	6.5	16.8	18.4
40.0 " " 45.0	4.7	12.2	13.5
45.0 " " 50.0	2.9	8.8	10.7
50.0 " " 60.0	3.3	11.0	12.0
60.0 " " 70.0	1.5	5.8	7.4
70 and over	1.1	4.7	7.2
TOTAL	100.0	100.0	100.0

HOURS PER WEEK

Percent of Wage Earners Working indicated time

Actual Hours Worked Per Week	April, 1933	August, 1933	August, 1934
Under 10	2.6		3.0
10 - 14	.8		1.5
14 - 18	3.1		4.3
18 - 22	1.7		4.1
22 - 26	3.4		6.2
26 - 30	3.0		3.2
30 - 34	7.2		14.9
34 - 38	8.9		11.2
38 - 42	65.8		47.0
42 - 46	1.7		3.2
46 - 48	.5		.5
48 and over	1.3		.9
TOTAL	100.0		100.0

CUMULATIVE PERCENTAGES

	Percent	Percent
Less than 12.5	4.1	
17.5	19.6	4.8
22.5	40.8	.3
27.5	62.8	7.8
30.0	68.9	1.5
32.5	75.3	8.9
35.0	80.0	1.8
40.0	86.5	12.8
45.0	91.2	5.6
50.0	94.1	40.7
60.0	97.4	30.8
70.0	98.9	57.5
70.0 and over	100.0	49.2

	Percent	Percent
Under 10		
" 14		
" 18		
" 22		
" 26		
" 30		
" 34		
" 38		
" 42		
" 46		
" 48		

CUMULATIVE PERCENTAGES

Percent	Percent
2.6	3.0
3.4	4.5
6.5	8.8
8.2	12.9
11.6	19.1
14.6	22.3
21.8	37.2
30.7	48.4
96.5	95.4
98.2	98.6
98.7	99.1

SOURCE: B.L.S. Original data and Summary in Labor Monthly Review, June, 1935

-WOOLEN AND WORSTED GOODS-

DISTRIBUTION OF AVERAGE HOURLY EARNINGS AND HOURS PER WEEK, BEFORE AND DURING THE CODE

Hourly Earnings (cents)	AVERAGE HOURLY EARNINGS — Percent of Wage Earners Receiving Indicated Amounts		
	Jan.-Feb.-Mar. 1932	August, 1933	August, 1934
Under 25.0	11.9	.1	.1
25.0 & under 27.5	6.6	.1	.1
27.5 " " 30.0	7.1	.1	.1
30.0 " " 32.5	8.4	.3	.1
32.5 " " 35.0	9.6	2.8	2.5
35.0 " " 37.5	9.8	29.9	20.8
37.5 " " 40.0	8.7	12.1	12.6
40.0 " " 42.5	6.7	9.4	10.3
42.5 " " 45.0	3.9	6.4	6.8
45.0 " " 47.5	4.3	6.1	6.4
47.5 " " 50.0	3.0	3.8	4.7
50.0 " " 55.0	6.2	6.9	8.6
55.0 " " 60.0	4.5	4.9	6.1
60.0 " " 65.0	3.8	3.9	5.4
65.0 " " 70.0	2.5	3.8	4.5
70.0 " " 75.0	1.5	2.9	3.8
75.0 " " 80.0	0.7	2.4	2.4
80.0 and over	0.8	4.1	4.7
TOTAL	100.0	100.0	100.0

	CUMULATIVE PERCENTAGES		
	Percent		
Less than 25.0	11.9	.1	.1
" " 27.5	18.5	.2	.2
" " 30.0	25.6	.3	.3
" " 32.5	34.0	.6	.4
" " 35.0	43.6	3.4	2.9
" " 37.5	53.4	33.3	23.7
" " 40.0	62.1	45.4	36.3
" " 42.5	68.8	54.8	46.6
" " 45.0	72.7	61.2	53.4
" " 47.5	77.0	67.3	59.8
" " 50.0	80.0	71.1	64.5
" " 55.0	86.2	78.0	73.1
" " 60.0	90.7	82.9	79.2
" " 65.0	94.5	81.8	84.6
" " 70.0	97.0	90.6	89.1
" " 75.0	98.5	93.5	92.9
" " 80.0	99.2	95.9	95.3
80 and Over	100.0	100.0	100.0

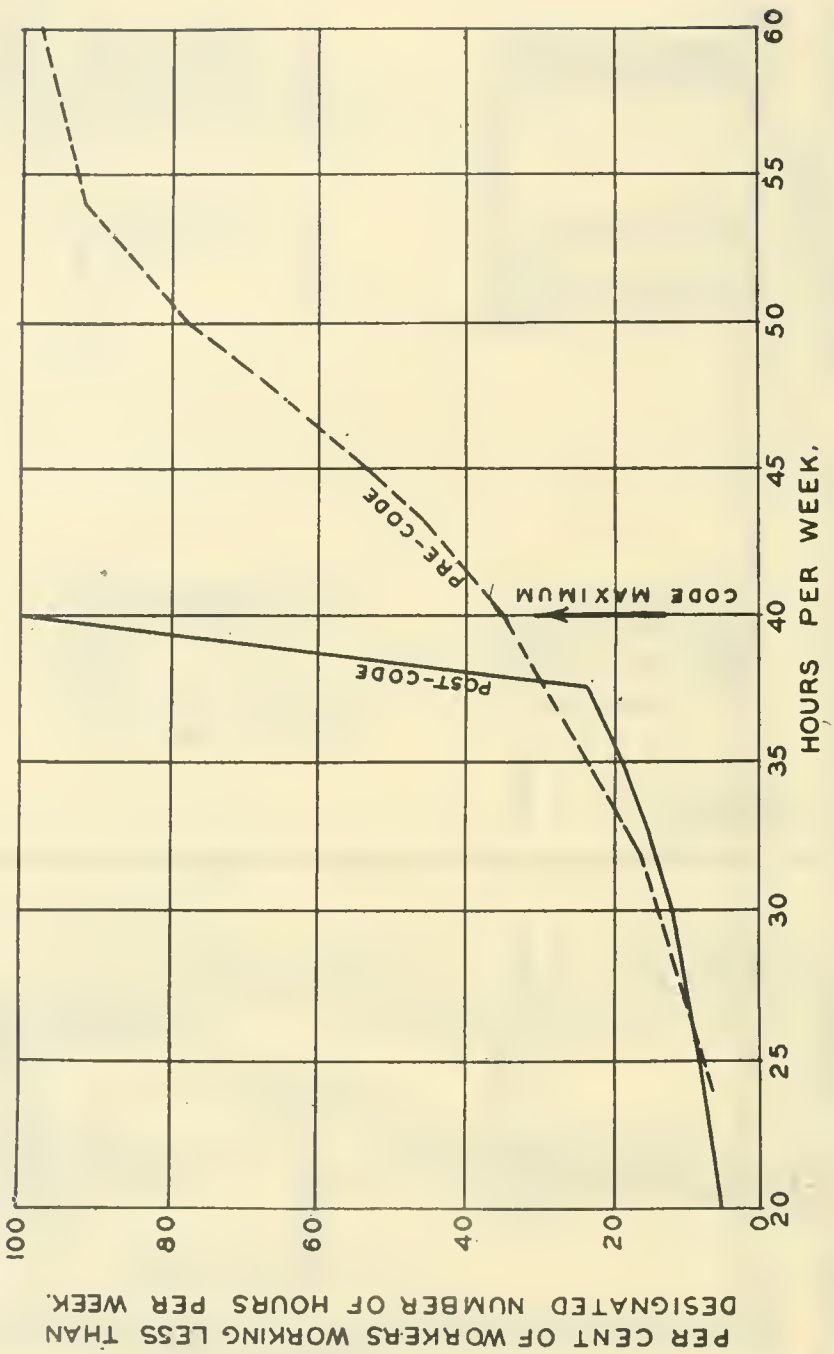
Average Weekly Hours	AVERAGE HOURS WORKED PER WEEK — Percent of Wage Earners Working Indicated Time	
	August, 1933	August, 1934
Under 10	2.1	7.5
10 under 14	1.1	3.5
14 " 18	2.2	7.9
18 " 22	1.0	4.6
22 " 26	3.2	10.6
26 " 30	2.2	3.6
30 " 34	9.5	11.8
34 " 38	6.6	6.5
38 " 42	68.9	40.4
42 " 50	1.9	2.0
50 and over	1.3	1.7
TOTAL	100.0	100.0

	CUMULATIVE PERCENTAGES — Percent	
Under 10	2.1	7.5
" 14	3.2	11.0
" 18	5.4	18.9
" 22	6.4	23.5
" 26	9.6	34.1
" 30	11.8	37.7
" 34	21.3	49.5
" 38	27.9	56.0
" 42	96.8	96.4
" 50	98.7	98.4
50 and Over		

SOURCE: B. L. S. Original Data and Summary in Labor Monthly Review, June, 1935

CHART 57

EFFECT ON WORK WEEK DISTRIBUTION OF WELL ENFORCED CODE WHICH PROVIDES TIME AND ONE THIRD FOR HOURS OVER 40.



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III. THE OBJECTIVE OF STABILIZED OUTPUT.

Stable, steady operation of the nation's industrial plant, with a view to spreading employment more evenly throughout the year, was a secondary but nevertheless important objective of certain N.R.A. codes. The problem is threefold.

(1) Cyclical irregularity of production associated with corresponding irregularity in demand; the problem of capacity operation.

(2) Cyclical irregularity of production due to maladjustments of supply to demand over a period of a year or more; production in peak years in excess of demand, production in depression years below demand.

(3) Seasonal irregularity of production and employment. Seasonal stability generally to be attained by building up inventories in the season of lowest consumer demand, and depleting inventories in the season of peak consumer's demand, so far as practicable.

Some industries furnish very regular employment throughout the year; others are very erratic. A chart is presented showing typical seasonal movement of employment in various industries arranged in order from least stable to most stable. Among the irregular industries are women's clothing, cement, and automobiles; among the most regular are petroleum refining, baking, foundries, blast furnaces, and newspapers and periodicals.

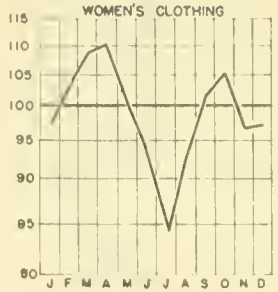
Monthly employment indices for 1932-1935 are shown for automobiles and cement, and monthly production indices for boots and shoes, 1923 - 1924 and 1933 - 1934.

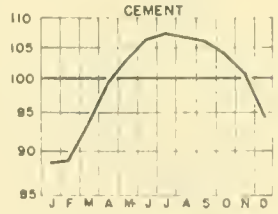
In 1935 - 1936 the automobile industry made a determined attempt to narrow the seasonal swings of the employment curve by moving forward the introduction of new models to November.

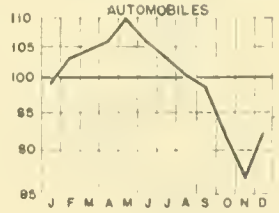
SEASONAL INSTABILITY OF EMPLOYMENT IN VARIOUS MANUFACTURING INDUSTRIES

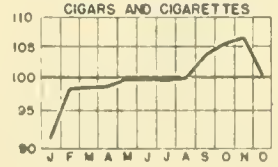
INDEXES, AVERAGE FOR THE YEAR = 100

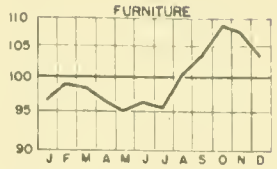
9820

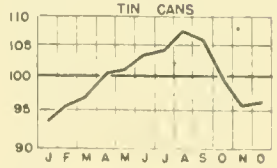


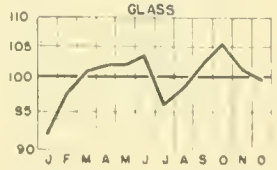


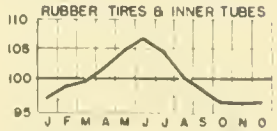


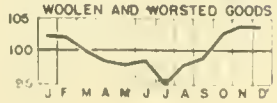


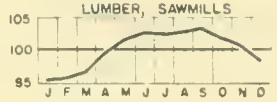


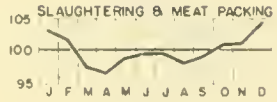


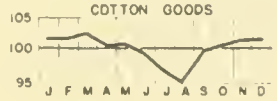


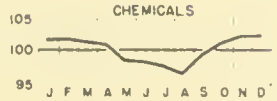


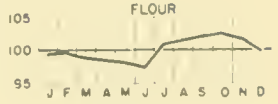


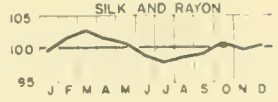


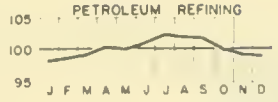


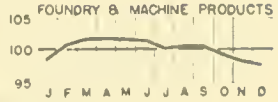












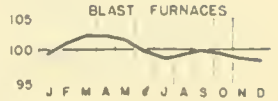


CHART 58

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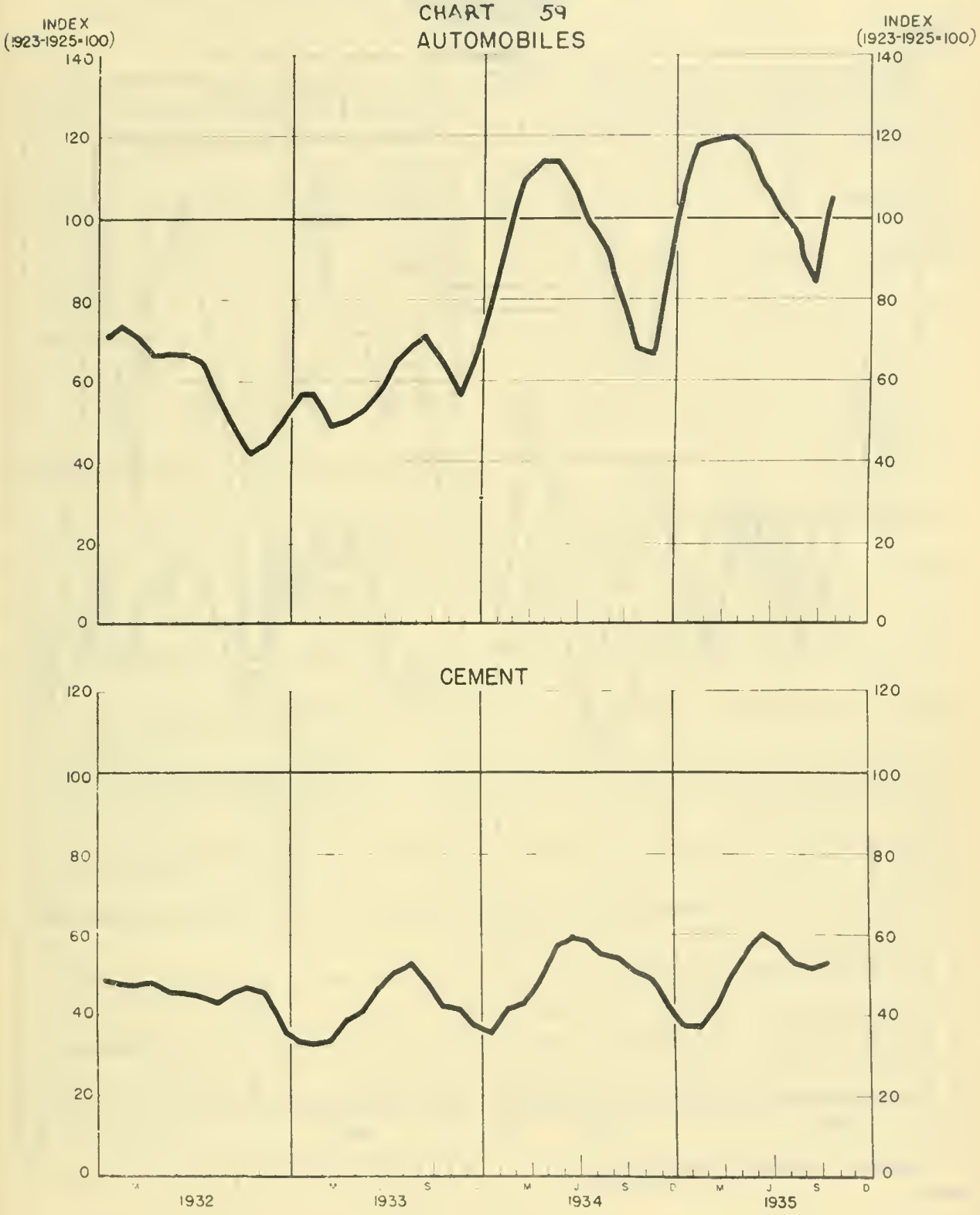
SOURCE: FEDERAL RESERVE BULLETIN, JUNE, 1934

DIVISION OF REVIEW
STATISTICS SECTION
NO 444

EMPLOYMENT IN TWO SEASONAL INDUSTRIES

1932-1935

CHART 59



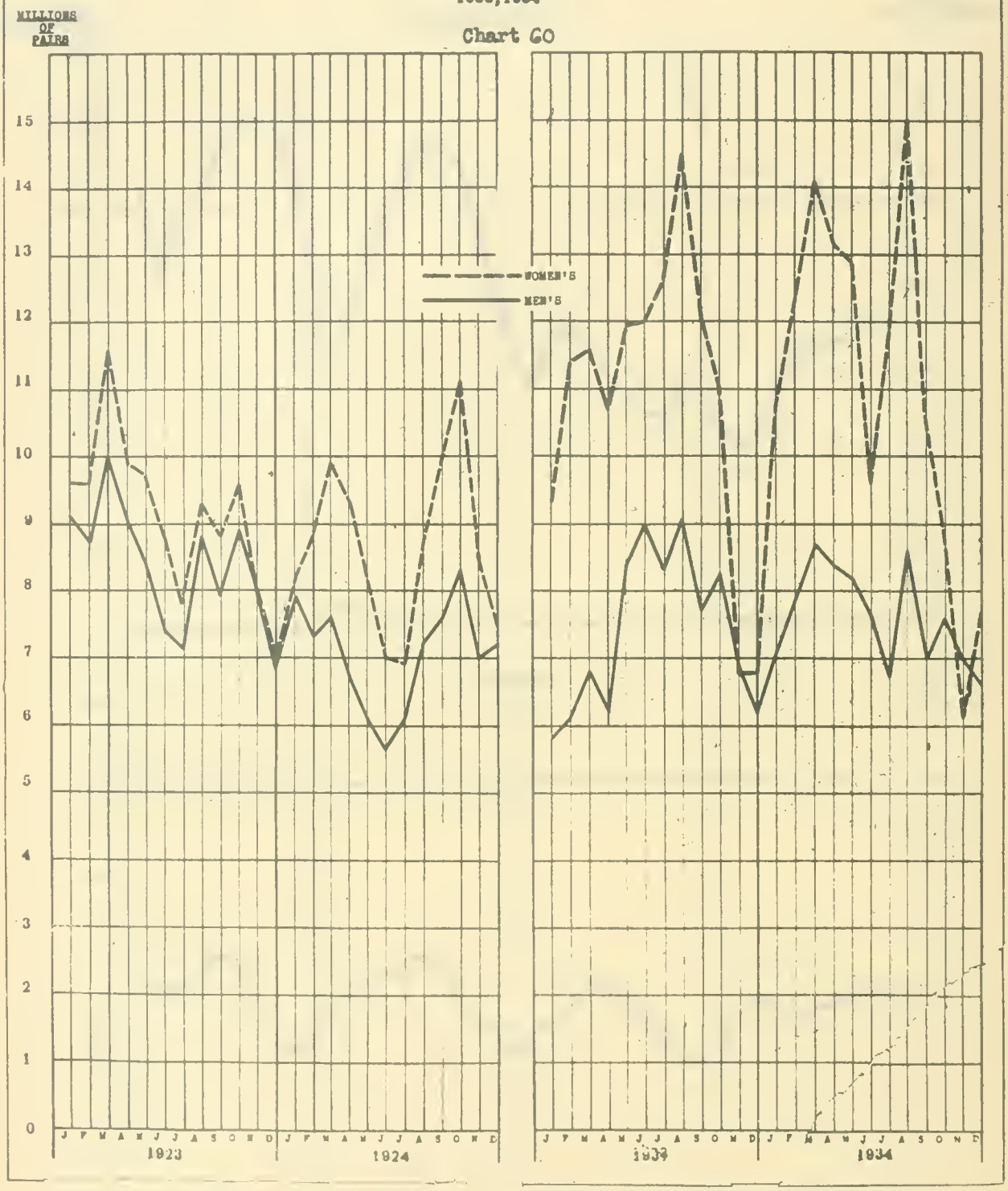
SOURCE: BUREAU OF LABOR STATISTICS UNADJUSTED SERIES

9320

N.R.A.
DIVISION OF REVIEW
STATISTICS SECTION
NO 451

PRODUCTION OF MEN'S AND WOMEN'S SHOES
BY MONTHS FOR THE
YEARS 1923,1924 &
1933,1934

Chart 60



Source: Bureau of the Census

9820

TABLE 42

MINIMUM AND MAXIMUM MONTHLY PRODUCTION OF MEN'S AND WOMEN'S SHOES FOR YEARS 1923-1934 AND PER CENT MINIMUM PRODUCTION IS OF MAXIMUM PRODUCTION EACH YEAR

	Men's Shoes			Women's Shoes		
	Production, Minimum Month	Production Maximum Month	Per Cent Minimum Month is of Maximum Month	Production, Minimum Month	Production Maximum Month	Per Cent Minimum Month is of Maximum Month
	Pairs	Pairs	Percent	Pairs	Pairs	Per Cent
1923	6,773,217	10,054,434	67.4	6,831,703	11,333,993	59.2
1924	5,646,670	8,333,007	67.8	6,910,150	11,107,746	62.2
1925	6,147,294	8,401,385	73.2	7,241,484	10,743,256	67.4
1926	5,660,720	8,676,160	65.2	7,471,213	11,207,624	66.7
1927	6,927,902	9,137,328	75.8	6,918,289	12,930,869	53.5
1928	6,360,089	9,215,987	69.0	6,803,566	13,128,974	51.9
1929	6,331,167	9,535,199	66.4	7,129,399	14,212,609	50.2
1930	4,759,699	7,576,044	62.6	5,033,578	11,855,527	42.5
1931	5,106,892	8,245,424	61.9	3,865,763	13,103,437	29.5
1932	5,135,461	8,043,630	63.9	5,469,694	13,670,173	40.0
1933	5,763,501	9,138,185	63.1	6,764,912	14,521,371	46.6
1934	6,562,568	8,672,910	7[illegible]	6,1[illegible]7,472	15,025,410	40.9

Source: Monthly Reports of the Bureau of the Census

IV. THE OBJECTIVE OF FAIR COMPETITION.

What is fair competition? The trade practices of the codes show what some, at least, in each coded industry considered fair and unfair, as regards: production quotas, plant and machine hours, additional productive capacity inventory control, open prices and bid filing terms, and so forth.

A classification and summary of trade practice provisions will be found in Work Materials No. 35, "Content of NIRA, Administrative Legislation, Part C."

OFFICE OF THE NATIONAL RECOVERY ADMINISTRATION
THE DIVISION OF REVIEW

THE WORK OF THE DIVISION OF REVIEW

Executive Order No. 7075, dated June 15, 1935, established the Division of Review of the National Recovery Administration. The pertinent part of the Executive Order reads thus:

> The Division of Review shall assemble, analyze, and report upon the statistical information and records of experience of the operations of the various trades and industries heretofore subject to codes of fair competition, shall study the effects of such codes upon trade, industrial and labor conditions in general, and other related matters, shall make available for the protection and promotion of the public interest an adequate review of the effects of the Administration of Title I of the National Industrial Recovery Act, and the principles and policies put into effect thereunder, and shall otherwise aid the President in carrying out his functions under the said Title. I hereby appoint Leon C. Marshall, Director of the Division of Review.

The study sections set up in the Division of Review covered these areas: industry studies, foreign trade studies, labor studies, trade practice studies, statistical studies, legal studies, administration studies, miscellaneous studies, and the writing of code histories. The materials which were produced by these sections are indicated below.

Except for the Code Histories, all items mentioned below are scheduled to be in mimeographed form by April 1, 1936.

THE CODE HISTORIES

The Code Histories are documented accounts of the formation and administration of the codes. They contain the definition of the industry and the principal products thereof; the classes of members in the industry; the history of code formation including an account of the sponsoring organizations, the conferences, negotiations and hearings which were held, and the activities in connection with obtaining approval of the code; the history of the administration of the code, covering the organization and operation of the code authority. the difficulties encountered in administration, the extent of compliance or non-compliance, and the general success or lack of success of the code, and an analysis of the operation of code provisions dealing with wages, hours, trade practices, and other provisions. These and other matters are canvassed not only in terms of the materials to be found in the files, but also in terms of the experiences of the deputies and others concerned with code formation and administration.

The Code Histories, (including histories of certain NRA units or agencies) are not mimeographed. They are to be turned over to the Department of Commerce in typewritten form. All told, approximately eight hundred and fifty (850) histories will be completed. This number includes all of the approved codes and some of the unapproved codes. (In Work Materials No. 18, Contents of Code Histries, will be found the outline which governed the preparation of Code Histories.)

(In the case of all approved codes and also in the case of some codes not carried to final approval, there are in NRA files further materials on industries. Particularly worthy of mention are the Volumes I, II and III which constitute the material officially submitted to the President in support of the recommendation for approval of each code. These volumes

set forth the origination of the code, the sponsoring group, the evidence advanced to support the proposal, the report of the Division of Research and Planning on the industry, the recommendations of the various Advisory Boards, certain types of official correspondence, the transcript of the formal hearing, and other pertinent matter. There is also much official information relating to amendments, interpretations, exemptions, and other rulings. The materials mentioned in this paragraph were of course not a part of the work of the Division of Review.)

THE WORK MATERIALS SERIES

In the work of the Division of Review a considerable number of studies and compilations of data (other than those noted below in the Evidence Studies Series and the Statistical Material Series) have been made. These are listed below, grouped according to the character of the material. (In Work Materials No. 17, Tentative Outlines and Summaries of Studies in Process, these materials are fully described).

Industry Studies

Automobile Industry, An Economic Survey of
Bituminous Coal Industry under Free Competition and Code Regulation, Economic Survey of
Electrical Manufacturing Industry, The
Fertilizer Industry, The
Fishery Industry and the Fishery Codes
Fishermen and Fishing Craft, Earnings of
Foreign Trade under the National Industrial Recovery Act
  Part A - Competitive Position of the United States in International Trade 1927-29 through 1934.
  Part B - Section 3 (e) of NIRA and its administration.
  Part C - Imports and Importing under NRA Codes.
  Part D - Exports and Exporting under NRA Codes.
Forest Products Industries, Foreign Trade Study of the
Iron and Steel Industry, The
Knitting Industries, The
Leather and Shoe Industries, The
Lumber and Timber Products Industry, Economic Problems of the
Men's Clothing Industry, The
Millinery Industry, The
Motion Picture Industry, The
Migration of Industry, The: The Shift of Twenty-Five Needle Trades From New York State, 1926 to 1934
National Labor Income by Months, 1929-35
Paper Industry, The
Production, Prices, Employment and Payrolls in Industry, Agriculture and Railway Transportation, January 1923, to date
Retail Trades Study, The
Rubber Industry Study, The
Textile Industry in the United Kingdom, France, Germany, Italy, and Japan
Textile Yarns and Fabrics
Tobacco Industry, The
Wholesale Trades Study, The
Women's Neckwear and Scarf Industry, Financial and Labor Data on

Women's Apparel Industry, Some Aspects of the

Trade Practice Studies

Commodities, Information Concerning: A Study of NRA and Related Experiences in Control
Distribution, Manufacturers' Control of: Trade Practice Provisions in Selected NRA Codes
Distributive Relations in the Asbestos Industry
Design Piracy: The Problem and Its Treatment Under NRA Codes
Electrical Mfg. Industry: Price Filing Study
Fertilizer Industry: Price Filing Study
Geographical Price Relations Under Codes of Fair Competition, Control of
Minimum Price Regulation Under Codes of Fair Competition
Multiple Basing Point System in the Lime Industry: Operation of the
Price Control in the Coffee Industry
Price Filing Under NRA Codes
Production Control in the Ice Industry
Production Control, Case Studies in
Resale Price Maintenance Legislation in the United States
Retail Price Cutting, Restriction of, with special Emphasis on The Drug Industry.
Trade Practice Rules of The Federal Trade Commission (1914-1936): A classification for comparison with Trade Practice Provisions of NRA Codes.

Labor Studies

Cap and Cloth Hat Industry, Commission Report on Wage Differentials in
Earnings in Selected Manufacturing Industries, by States, 1933-35
Employment, Payrolls, Hours, and Wages in 115 Selected Code Industries 1933-35
Fur Manufacturing, Commission Report on Wages and Hours in
Hours and Wages in American Industry
Labor Program Under the National Industrial Recovery Act, The
Part A. Introduction
Part B. Control of Hours and Reemployment
Part C. Control of Wages
Part D. Control of Other Conditions of Employment
Part E. Section 7(a) of the Recovery Act
Materials in the Field of Industrial Relations
PRA Census of Employment, June, October, 1933
Puerto Rico Needlework, Homeworkers Survey

Administrative Studies

Administrative and Legal Aspects of Stays, Exemptions and Exceptions, Code Amendments, Conditional Orders of Approval
Administrative Interpretations of NRA Codes
Administrative Law and Procedure under the NIRA
Agreements Under Sections 4(a) and 7(b) of the NIRA
Approve Codes in Industry Groups, Classification of
Basic Code, the -- (Administrative Order X-61)
Code Authorities and Their Part in the Administration of the NIRA
Part A. Introduction
Part B. Nature, Composition and Organization of Code Authorities

Part C. Activities of the Code Authorities
Part D. Code Authority Finances
Part E. Summary and Evaluation
Code Compliance Activities of the NRA
Code Making Program of the NRA in the Territories, The
Code Provisions and Related Subjects, Policy Statements Concerning
Content of NIRA Administrative Legislation
Part A. Executive and Administrative Orders
Part B. Labor Provisions in the Codes
Part C. Trade Practice Provisions in the Codes
Part D. Administrative Provisions in the Codes
Part E. Agreements under Sections 4(a) and 7(b)
Part F. A Type Case: The Cotton Textile Code
Labels Under NRA, A Study of
Model Code and Model Provisions for Codes, Development of
National Recovery Administration, The: A Review of its Organization and Activities
NRA Insignia
President's Reemployment Agreement, The
President's Reemployment Agreement, Substitutions in Connection with the
Prison Labor Problem under NRA and the Prison Compact, The
Problems of Administration in the Overlapping of Code Definitions of Industries and Trades, Multiple Code Coverage, Classifying Individual Members of Industries and Trades
Relationship of NRA to Government Contracts and Contracts Involving the Use of Government Funds
Relationship of NRA with States and Municipalities
Sheltered Workshops Under NRA
Uncodified Industries: A Study of Factors Limiting the Code Making Program

Legal Studies

Anti-Trust Laws and Unfair Competition
Collective Bargaining Agreements, the Right of Individual Employees to Enforce
Commerce Clause, Federal Regulation of the Employer-Employee Relationship Under the
Delegation of Power, Certain Phases of the Principle of, with Reference to Federal Industrial Regulatory Legislation
Enforcement, Extra-Judicial Methods of
Federal Regulation through the Joint Employment of the Power of Taxation and the Spending Power
Government Contract Provisions as a Means of Establishing Proper Economic Standards, Legal Memorandum on Possibility of
Industrial Relations in Australia, Regulation of
Intrastate Activities Which so Affect Interstate Commerce as to Bring them Under the Commerce Clause, Cases on
Legislative Possibilities of the State Constitutions
Post Office and Post Road Power -- Can it be Used as a Means of Federal Industrial Regulation?
State Recovery Legislation in Aid of Federal Recovery Legislation History and Analysis
Tariff Rates to Secure Proper Standards of Wages and Hours, the Possibility of Variation in
Trade Practices and the Anti-Trust Laws
Treaty Making Power of the United States
War Power, Can it be Used as a Means of Federal Regulation of Child Labor?

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THE EVIDENCE STUDIES SERIES

The Evidence Studies were originally undertaken to gather material for pending court cases. After the Schechter decision the project was continued in order to assemble data for use in connection with the studies of the Division of Review. The data are particularly concerned with the nature, size and operations of the industry; and with the relation of the industry to interstate commerce. The industries covered by the Evidence Studies account for more than one-half of the total number of workers under codes. The list of those studies follows:

Automobile Manufacturing Industry
Automotive Parts and Equipment Industry
Baking Industry
Boot and Shoe Manufacturing Industry
Bottled Soft Drink Industry
Builders' Supplies Industry
Canning Industry
Chemical Manufacturing Industry
Cigar Manufacturing Industry
Coat and Suit Industry
Construction Industry
Cotton Garment Industry
Dress Manufacturing Industry
Electrical Contracting Industry
Electrical Manufacturing Industry
Fabricated Metal Products Mfg. and Metal Finishing and Metal Coating Industry
Fishery Industry
Furniture Manufacturing Industry
General Contractors Industry
Graphic Arts Industry
Gray Iron Foundry Industry
Hosiery Industry
Infant's and Children's Wear Industry
Iron and Steel Industry
Leather Industry
Lumber and Timber Products Industry
Mason Contractors Industry
Men's Clothing Industry
Motion Picture Industry
Motor Vehicle Retailing Trade
Needlework Industry of Puerto Rico
Painting and Paperhanging Industry
Photo Engraving Industry
Plumbing Contracting Industry
Retail Lumber Industry
Retail Trade Industry
Retail Tire and Battery Trade Industry
Rubber Manufacturing Industry
Rubber Tire Manufacturing Industry
Shipbuilding Industry
Silk Textile Industry
Structural Clay Products Industry
Throwing Industry
Trucking Industry
Waste Materials Industry
Wholesale and Retail Food Industry
Wholesale Fresh Fruit and Vegetable Industry
Wool Textile Industry

THE STATISTICAL MATERIALS SERIES

This series is supplementary to the Evidence Studies Series. The reports include data on establishments, firms, employment, payrolls, wages, hours, production capacities, shipments, sales, consumption, stocks, prices, material costs, failures, exports and imports. They also include notes on the principal qualifications that should be observed in using the data, the technical methods employed, and the applicability of the material to the study of the industries concerned. The following numbers appear in the series:
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Asphalt Shingle and Roofing Industry
Business Furniture
Candy Manufacturing Industry
Carpet and Rug Industry
Cement Industry
Cleaning and Dyeing Trade
Coffee Industry
Copper and Brass Mill Products Industry
Cotton Textile Industry
Electrical Manufacturing Industry
Fertilizer Industry
Funeral Supply Industry
Glass Container Industry
Ice Manufacturing Industry
Knitted Outerwear Industry
Paint, Varnish, and Lacquer, Mfg. Industry
Plumbing Fixtures Industry
Rayon and Synthetic Yarn Producing Industry
Salt Producing Industry

THE COVERAGE

The original, and approved, plan of the Division of Review contemplated resources sufficient (a) to prepare some 1200 histories of codes and NRA units or agencies, (b) to consolidate and index the NRA files containing some 40,000,000 pieces, (c) to engage in extensive field work, (d) to secure much aid from established statistical agencies of government, (e) to assemble a considerable number of experts in various fields, (f) to conduct approximately 25% more studies than are listed above, and (g) to prepare a comprehensive summary report.

Because of reductions made in personnel and in use of outside experts, limitation of access to field work and research agencies, and lack of jurisdiction over files, the projected plan was necessarily curtailed. The most serious curtailments were the omission of the comprehensive summary report; the dropping of certain studies and the reduction in the coverage of other studies; and the abandonment of the consolidation and indexing of the files. Fortunately, there is reason to hope that the files may yet be cared for under other auspices.

Notwithstanding these limitations, if the files are ultimately consolidated and indexed the exploration of the NRA materials will have been sufficient to make them accessible and highly useful. They constitute the largest and richest single body of information concerning the problems and operations of industry ever assembled in any nation.

L. C. Marshall,
Director, Division of Review.

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